(This ADEQ document matches the official rulemaking published at 5 A.A.R.98)

NOTICE OF FINAL RULEMAKING

TITLE 18. ENVIRONMENTAL QUALITY

CHAPTER 4. DEPARTMENT OF ENVIRONMENTAL QUALITY

SAFE DRINKING WATER

PREAMBLE

1. **Sections Affected** — **Rulemaking Action**

R18-4-101	Amend
R18-4-104	Amend
R18-4-120	Amend
R18-4-122	Amend
Article 2.	Amend
R18-4-206	Amend
R18-4-212	Amend
R18-4-216	Amend
R18-4-219	Amend
R18-4-224	New Section
R18-4-225	New Section
R18-4-226	New Section
R18-4-401	Amend
R18-4-402	Amend
R18-4-404	Amend
R18-4-405	Amend

2. **The specific authority for the rulemaking, including both the authorizing statute (general) and the statutes the rules are implementing (specific):**

Authorizing statute: A.R.S. §§ 41-1009, 49-202, 49-351, 49-353, 49-354 and 49-360

Implementing statutes: A.R.S. § 49-360

3. Effective date of rules:

Date filed with the Secretary of State

4. List all previous notices appearing in the register addressing the proposed rules:

3 A.A.R. 1691, June 20, 1997 Notice of Docket Opening

Vol.# page # Issue date

3 A.A.R. 3396, December 5, 1997 Notice of Proposed Rulemaking

Vol.# page # Issue date

4 A.A.R. 1872, July 17, 1998 Notice of Termination of Rulemaking

Vol.# page # Issue date

4 A.A.R. 1843, July 17, 1998 Notice of Proposed Rulemaking

Vol.# page # Issue date

4 A.A.R. 2625, September 18, 1998 Notice of Termination of Rulemaking

Vol.# page # Issue date

4 A.A.R. 2629, September 18, 1998 Notice of Docket Opening

Vol.# page # Issue date

4 A.A.R. 2603, September 18, 1998 Notice of Proposed Rulemaking

Vol.# page # Issue date

5. The name and address of agency personnel with whom persons may communicate regarding the rulemaking:

Name: Margaret L. McClelland or Martha L. Seaman

Address: Arizona Department of Environmental Quality

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Phoenix, AZ 85012

Telephone Number: (602)207-2224

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6. An explanation of the rule, including the agency's reasons for initiating the rule:

The purpose of this rulemaking is to implement a monitoring assistance program authorized in Laws 1998, Ch.

298, § 6 (HB 2231), passed during the 1998 legislative session. This program will provide for the collection, transportation and analysis of certain baseline samples from public water systems in a frequency sufficient to keep the systems in compliance with the federal Safe Drinking Water Act requirements. A.R.S. § 49-360, as amended by HB 2231, requires that the Arizona Department of Environmental Quality (ADEQ) contract with one or more private parties or state-wide nonprofit organizations representing water systems to implement the monitoring assistance program, subject to available funding. The rules will also establish fees to support the program.

A. Background for These Proposed Rules

During the 1997 legislative session, the Arizona Legislature first passed § 49-360 which authorized the ADEQ to establish a centralized monitoring program to assist public water systems in complying with the monitoring requirements under the Federal Safe Drinking Water Act (SDWA). The Department proposed and adopted rules which were heard before the Governor's Regulatory Review Council (Council) on April 7, 1998. The Council tabled action on the rulemaking for up to 90 days to allow ADEQ to have further dialogue with interested parties regarding issues raised at the Council meeting. While the rules were tabled, the Arizona legislature again considered the centralized monitoring program and ADEQ began dialogue with stakeholders at the legislature. As a result, the legislature passed HB 2231, which amended A.R.S. § 49-360, requiring ADEQ to establish the monitoring assistance program through rulemaking. The rulemaking which had been tabled by GRRC was withdrawn and terminated, and the Notice of Proposed Rulemaking for the monitoring assistance program rulemaking was proposed and published in the July 17, 1998 *Arizona Administrative Register (Register)*.

ADEQ held 5 informal meetings around the state during July and August to discuss with stakeholders the proposed rule to establish the monitoring assistance program. ADEQ also held one oral proceeding at ADEQ on August 24, 1998 to receive comments and the close of record was scheduled for August 28, 1998. However, in the interim, ADEQ discovered a flaw in the notice of this rulemaking. The Notice of Docket Opening had not been published in the *Register* as required by the Administrative Procedures Act.

To cure this flaw, ADEQ filed 3 documents, simultaneously, with the Office of the Secretary of State (SOS) for

publication in the September 18, 1998 *Register*. ADEQ filed a notice to terminate the Notice of Proposed Rulemaking which appeared in the July 17, 1998 *Register*. ADEQ also filed a Notice of Docket Opening and this Notice of Proposed Rulemaking. The rule text which appears in this Notice of Proposed Rulemaking is exactly the same as that which appeared in the July 17, 1998 *Register*. Only the preamble was modified to explain the three filings with the SOS, to provide for one oral proceeding on October 19, 1998 at ADEQ, and to new requirements of the Arizona Administrative Procedures Act.

During the first week of September, 1998, ADEQ mailed out its monthly newsletter to over 3,400 persons who had either requested to be notified of ADEQ rulemakings or were on other ADEQ mailing lists. The Rulesletter mailing list includes public water systems which would be affected by this rulemaking. That Rulesletter contained a detailed explanation of the status of the monitoring assistance program rulemaking and gave notice of the additional opportunity for public comment. Additionally, on October 7, 1998, ADEQ sent by first class mail, 1274 letters to active public water systems in Arizona, again notifying them of the opportunity for further comment on the rulemaking and of the October 19, 1998 oral proceeding.

An oral proceeding was held on October 19, 1998 at ADEQ in Phoenix. The oral proceeding was conducted in a manner that allowed for adequate discussion of the substance and the form of the proposed rules. Persons were given the opportunity to ask questions regarding the proposed rule and present oral argument, data and views on the proposed rule. ADEQ has responded to comments received during the formal comment periods in the concise explanatory statement of this rulemaking. The rulemaking record was closed at 11:00 a.m. on October 19, 1998.

The primary purpose of the SDWA is to ensure that drinking water supplied to consumers by pubic water systems is safe to drink and does not exceed prescribed maximum contaminant levels (MCLs). Water suppliers are required to conduct monitoring every 3 years to verify that MCLs are not exceeded and to report the results to the ADEQ. If there are any MCL violations, the water supplier is required to provide public notification to persons who are served by the public water systems and to take necessary actions to eliminate the violations.

Drinking water monitoring requirements have been in existence since at least 1962. Beginning with the passage of the 1986 Drinking Water Act Amendments, the rate of change to the monitoring requirements has accelerated. As a result, the current monitoring requirements are extremely complex, difficult to understand and compliance is expensive.

Compliance monitoring rates for inorganic chemicals, volatile organic chemicals (VOCs) and synthetic organic chemicals (SOCs) are extremely low. ADEQ has had a concerted technical assistance program, as well as an aggressive enforcement program. As a result of the lack of compliance monitoring, the water quality regarding these contaminants is unknown for most public water systems, particularly small water systems.

Some water systems spent considerable sums of money on monitoring and found themselves still out of compliance. These systems had not taken the appropriate number of samples at the appropriate locations in the appropriate timeframes, or failed to instruct the laboratories to run the appropriate analyses. Some results were rejected by ADEQ for reasons associated with the analytical methods used by the laboratories.

These problems combined to produce a groundswell of dissention in the drinking water industry that reached a crescendo in 1996. In response, a study team led by members of the Arizona Legislature, was formed and held a series of legislative hearings around the state during the summer of 1996 to hear about the problems and concerns facing small water systems. It produced a series of eleven recommendations which comprised the bulk of the content of SB 1252 passed during the 1997 legislative session, and HB 2231 passed during the 1998 legislative session.

HB 2231 also established the Monitoring Assistance Fund, which will consist of fees collected from participating public water systems. The fees are to be used to pay the monitoring assistance program contractors, and the environmental laboratories that perform the analyses. In addition, a portion of the fees are applied to the administrative costs incurred by ADEQ.

7. **A reference to any study that the agency proposes to rely on in its evaluation of or justification for the proposed rule and where the public may obtain or review the study, all data underlying each study, any**

analysis of the study and other supporting material:

W. Coniglio, P. Berger, & J. Cotruva, "Water Pollution and Chemical Contamination in Drinking Water," Principles and Practices of Environmental Medicine, ed. by Tarcher, M.D., New York: Plenum Publishing, 1992. Available for review in the public rulemaking docket available at ADEQ at 3033 North Central Avenue, Phoenix 85012.

8. **A showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision for this state:**

N/A

9. **The summary of the economic, small business and consumer impact:**

EXECUTIVE SUMMARY

Under authority of ARS § 49-360, the Arizona Department of Environmental Quality (ADEQ) has established the monitoring assistance program to assist public water systems (PWSs) in complying with monitoring requirements under the Federal Safe Drinking Water Act. The Department is in the process of contracting with private sector entities to implement the program. The monitoring assistance program is mandatory for all small PWSs (those serving 10,000 people or less), and optional for those that serve more than 10,000.

There are a total of 1,764 PWSs in Arizona, 963 (54.6%) of which are small and, therefore, are to be governed by this rule. All 963 systems are either community water systems (CWSs) or non-transient, non-community water systems (NTNCWSs). CWSs are those that deliver water to at least 25 people or 15 service connections year round; and NTNCWSs serve an average of 25 persons (or 15 service connections) or more for at least 6 months a year. These systems serve an estimated combined total of 710,173 people comprising just 14.9% of Arizona's population.

The Monitoring Assistance Program

The monitoring assistance program provides for a chemical monitoring process which consists of the collection, transportation and analytical testing of baseline samples from all participating PWSs. Under the program, contractor(s) fromthe private sector will collect and transport samples to monitor a total of 98 regulated and unregulated contaminants under the following categories: volatile organic chemicals (VOCs), synthetic organic chemicals (SOCs), and inorganic

chemicals (IOCs) except for asbestos, copper, lead, nitrates, and nitrites. All samples that are tested and discovered to exceed maximum contaminant levels (MCLs) will be subjected to required increased sampling and public notification requirements by the PWS owner, as stipulated by existing rules.

To implement the program, the Department will contract with one or more contractors to collect drinking water samples and transport these to laboratories. Analytical testing will be carried out by laboratories certified by the Arizona Department of Health Services (ADHS) or the US Environmental Protection Agency (EPA), and meet specific criteria for laboratory qualifications and performance established by ADEQ. Chemicals not covered by the rule (the remaining IOCs, radiochemicals, and other contaminants including total coliform) will still be monitored as required by existing State rules (Title 18 AAC, Chapter 4, Article 2), but they will continue to be the responsibility of the PWS.

The Department will also contract for the following services: 1) assisting PWSs to apply and qualify for waivers; and 2) providing on-site technical assistance to all PWSs in need of monitoring assistance to comply with any portion of the Federal Safe Drinking Water Act.

NON-COMPLIANCE

Under current State law, sampling and testing to ensure safe drinking water for Arizona's residents is a responsibility of the PWS owners. To achieve compliance under existing State rules, all PWSs are supposed to have:

a) monitored for all contaminants in the required frequency;

b) monitored all their sampling locations or points of entry (POEs); and

c) carried out the monitoring during their assigned monitoring year.

Based on these requirements, there has tended to be a high non-compliance rate in the past among small PWSs in Arizona. Indicative of this non-compliance is PWS performance pertaining to SOCs. ADEQ records show that only 26% of PWSs during the 1993-95 monitoring period fully complied at that time. (939 was the total in 1995, as differentiated from the FYE 1998 total of 963.) Another 43% were in partial compliance (i.e., they monitored for fewer than the required number of SOCs); and 31% did not monitor at all. Thus, a fairly large majority (74%) of small systems have exhibited

monitoring deficiencies of one kind or another. ADEQ will implement the monitoring assistance program to ensure that the required monitoring is performed and public health is protected.

THE COST OF COMPLIANCE

To pay for the program, the Department is authorized to assess fees from all participating PWS. Fees will be assessed annually to cover the first monitoring cycle January 1, 1999 to December 31, 2001. Collection will commence as soon as these rules are approved.

The fee will be standardized according to the number and meter size of residents' or customers' service connections. The base rate will consist of a flat fee of $3.50 per year for a three-quarter inch service connection or smaller. This will apply to 93.7% of all service connections, the vast majority of which are located in residential sites. PWS with fewer than 100 service connections will pay a flat fee of $350 per year.

The program will be implemented subject to available funding. The fees collected by the Department will be used to pay the contractor(s) for sampling, analytical testing, waivers and monitoring technical assistance. If detects or maximum contaminant levels (MCLs) occur, the relevant PWS will be required to pay for the increased sampling frequency and other corrective action measures.

The aim of the MAP, then, is to enable small PWS to achieve monitoring compliance for the covered contaminants. If MCL violations occur, the relevant PWS will be subjected to public notice requirements, and ADEQ will take the necessary steps for the protection of public health.

DISTRIBUTION OF COSTS

The cost allocation method is as follows: each PWS determines the number and size of all of its water meters and/or service connections by June 30 of each year. The PWS owner or operator reports the information to ADEQ by October 1 of the same year. ADEQ prepares an invoice based on this information and sends out a bill to the PWS owner/operator charging a unit fee for each size of service connection and/or meter. PWSs will be required to pay annually.

The monitoring assistance program budget for the first monitoring cycle is being developed and will be finalized as soon as the ADEQ sampling contract is completed. Budget projections will reflect the contractor(s)' costs based on the business plan for implementing the program. Important components of the contractor(s)' business plan will consist of the costs for collection, transportation, and analytical testing of water samples. Contractor(s) will negotiate with ADHS-licensed or EPA-approved private laboratories that meet the qualifications and performance criteria established by ADEQ. Current negotiations are expected to focus on details of a sampling plan for all 963 small PWS, and will exclude all costs for required re-sampling.

MONITORING ASSISTANCE PROGRAM SAMPLING PLAN

The monitoring assistance program sampling plan will be heavily dependent on the number and locations of drinking water sources or points of entry (POEs). ADEQ records show that there are a total of 1,334 POE's, 97.2% of which are for groundwater sources. The remainder are for surface water sources which have different sampling frequency requirements. However, 50 (5.2%) of the 963 small PWSs have not identified their points of entry. These 50 have a combined total of 5,850 service connections, and serve 26,400 people. (See Tables 1 and 2 in the Appendix.)

The Sampling Plan is to be crafted according to specific variables that will dictate costs. Among the cost variables are:

a) the number of sampling locations or points of entry (POEs);

b) the required sampling frequency;

c) the water source (surface or groundwater);

d) the frequency of allowed compositing;

e) the EPA-approved testing method;

f) the number of waivers granted; and

g) transportation and shipping costs.

Cost savings for the monitoring assistance program are likely to be realized through waivers that the Department may grant to selected PWSs, depending on the data collected for the Source Water Assessment Program (SWAP). EPA has required ADEQ to perform source water assessments on all drinking water sources in the State. Thus, ADEQ contracted

with a national environmental engineering company in July to accurately locate drinking water sources (wells and surface water intakes) using a Global Positioning System (GPS). When completed, the collected information will enable ADEQ staff to grant monitoring waivers whenever appropriate conditions apply. The greater the number of waivers granted, the lesser the costs for sampling and analytical testing.

MONITORING ASSISTANCE PROGRAM BENEFITS

The benefits of the program are anticipated to result in universal compliance for contaminants covered under this program by all small PWSs in the State, which will be a marked improvement from the currently high non-compliance rate. Private sector contractor(s) and the laboratories with which they sub-contract, are also expected to profit from the program. Public health benefits will be derived from delivery of safe drinking water.

ADEQ believes that the benefits of the monitoring assistance program will outweigh program costs because safe drinking water is critical to general public health. All the contaminants that are required to be tested for, are either known carcinogens or have been known to cause or be associated with many other diseases, including kidney and liver diseases. There are documented cases of MCL exceedances in Arizona that have posed a clear threat to public health.

Although pathogens in inadequately treated drinking water are still the greatest public health concern related to drinking water, increased industrialization, the widespread use of industrial and agricultural chemicals, and the disposal of large volumes of industrial wastes require the protection of drinking water from contamination with chemical agents. Over 60,000 chemicals are being used nationwide by industry and agriculture which can pollute both surface and groundwater sources of drinking water. The quality of drinking water can be compromised by a number of processes which include leakage from underground storage tanks, agricultural run-off, improper industrial practices, mining operations, the subsurface injection of waste chemicals and brines, and corrosive water.[1] When drinking water quality is compromised,

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[1] W. Coniglio, P.Berger, & J. Cotruvo, "Water Pollution and Chemical Contamination in Drinking Water", Principles and Practice of Environmental Medicine ed. by A. Tarcher, M.D., New York: Plenum Publishing, 1992.

ADEQ intends that the monitoring assistance program will be used to document any existing problems and to take the necessary steps to protect public health.

ARS § 41-1055 Requirements for an EIS

B(2) PERSONS DIRECTLY AFFECTED BY THE RULE

a) Arizona Department of Environmental Quality --

ADEQ, as the implementing agency, is charged with administering the contract(s) that will implement the program. The Department will also take charge of the billing and collection of fees, as well as the management of the Monitoring Assistance Fund, and is authorized to retain 10% of all fees collected.

b) Arizona Department of Health Services (ADHS) Laboratory Licensure and State Laboratory --

Laboratory Licensure certifies private commercial laboratories, both in and outside Arizona. Certification, for purposes of this program, means drinking water analytical testing certification.

c) Arizona Corporation Commission (ACC) -- The ACC regulates all PWSs that are classified as utilities and corporations, except trusts, cooperatives, partnerships and sole proprietorships. If, as a result of the monitoring assistance program, the systems will increase the fees they collect from their residents and customers in an amount that exceeds 10% of current fees, they will have to seek approval from ACC for any surcharge increase. If the PWSs decrease the fees they charge their customers, they will apply to ACC for the appropriate rate adjustment.

d) Public Water Systems (PWSs) -- Regulated entities who will be governed by this rule are the 963 small PWSs, as well as any large PWSs (those serving more than 10,000) that will choose to participate in the program. All participating PWSs will be required to remit to ADEQ the program fees established in this rule. However, State-owned systems are exempt from the payment of fees.

e) Private Laboratories -- ADHS-certified private laboratories that meet laboratory qualifications and performance criteria established by ADEQ, and enter into a contract with the ADEQ Sampling Contractor(s), will carry out analytical testing

of the collected samples.

f) Private Sector Suppliers -- Businesses in the various industries that will be directly and indirectly affected by the monitoring assistance program monitoring process (manufacturers and distributors of bottles and other supplies used for sampling and testing, transportation companies, businesses supplying vehicles, computers, etc.), will benefit from new business that will accompany the required monitoring for currently non-compliant systems.

g) Residents and Water Consumers of the State -- Arizona residents and water consumers served by the participating PWSs, will benefit from a greater assurance of the safety of their drinking water supply. System owners may choose to pass on the costs of the program to their residents and customers.

g) Taxpayers -- The taxpaying public that supports public entities like municipalities and school districts will provide a partial subsidy for this program through the use of funds for that portion of the program that will cover the costs of monitoring the systems owned and operated by these entities.

B(3) COST-BENEFIT ANALYSIS

I. COSTS AND BENEFITS TO STATE AGENCIES

A. AZ Department of Environmental Quality

The Department will administer the contract(s), prepare the fee invoices, collect the fees and pay for program costs subject to available funding. To defray administration costs, ADEQ is authorized to retain 10% of all fee revenues collected. The current estimate from projected revenues shows ADEQ's portion to be about $92,836 annually during the first monitoring cycle, assuming all bills are paid. The Department is also authorized to grant waivers.

Program expenditures will be heavily influenced by the cost variables indicated above, and on what the contractor(s) bring to the negotiating table. The Department will look to the contractor(s)' ability to develop a sampling plan that can accomplish all the required monitoring within the limits of the established fees. The Department also expects that the contractor(s) will have the expertise necessary to perform the work adequately and on schedule, and to be able to fulfill

all the legal and technical requirements of the Safe Drinking Water Act with respect to the monitoring of covered contaminants.

Through the monitoring assistance program, ADEQ will also acquire statewide monitoring data needed for implementing Permanent Monitoring Relief (PMR) which, when enacted at the Federal level, will be adopted by the State. In 1997, EPA issued guidelines for states to follow in proposing alternative monitoring requirements for chemical contaminants. Congress recognized that as a state gains a better understanding of the contamination sources that may affect the quality of a drinking water supply, the State would be in an appropriate position to tailor the monitoring requirements for the system while continuing to provide effective public health protection. The monitoring assistance program, in conjunction with the source water assessment program, will generate the information that will enable states to offer alternative monitoring to PWS in appropriate circumstances. Alternative monitoring must ensure that public health is protected from drinking water contamination, that a state program will apply on a contaminant-by-contaminant basis and that a PWS must show the state that the contaminant is not present in the drinking water supply (or, if present, is reliably and consistently below the MCLs). ADEQ anticipates PMR to be in place at the federal level after August 6, 1999.

B. Arizona Department of Health Services (ADHS)

The ADHS Laboratory Licensure certifies commercial laboratories to ensure that they are qualified and equipped to conduct analytical testing for drinking water and all other environmental compliance tests. To issue a certification, ADHS charges the laboratory an annual non-refundable application fee which is based on the number of licensed parameters (ranging from $1,000 for 1 to 9 parameters, to $1,400 for more than 17 parameters). In addition to the licensure application fee, applicants pay for the licensure of approved methods and associated instrumentation according to a fee schedule that is set in ADHS rules.

There may be some increase in ADHS certification and laboratory activities as a result of this rule, but no incremental costs or benefits to the agency are anticipated.

C. Arizona Corporation Commission (ACC)

The ACC regulates all privately-owned PWSs classified as utilities and corporations. ACC staff may see more applications coming into the agency for water utility surcharges, but there will be no incremental costs and benefits to the agency. Any costs the agency may incur as a result of this program will come mainly from granting authority to PWSs under its jurisdiction to recover the costs of the monitoring assistance program. The ACC has developed a form to facilitate this process. At present, there are 410 PWSs (42.6% of the total) which are regulated by ACC.

D. State agencies that are regulated by ADEQ -- State agencies that are small PWS owners/operators such as the AZ Department of Corrections and the AZ Department of Transportation, will continue to perform their own monitoring but are exempt from the payment of fees and will not be affected by this rule.

II. COSTS AND BENEFITS TO POLITICAL SUBDIVISIONS OF THE STATE

A. Municipalities, counties and quasi-government entities including school districts, Domestic Water Improvement Districts (DWID's) and universities that are small PWSs, are required to participate in the program. Over 200 small systems fall under this category. They will be required to pay program fees like all other private sector PWSs.

Part of the benefits that small systems will realize from this program, whether they are public or privately-owned, is that they will be relieved of the administrative burdens of sampling and testing for the covered contaminants. Many system owners have complained in the past that existing monitoring rules are too complex, confusing, and difficult to follow. This rule will enable ADEQ contractor(s) to collect and transport the samples, and let private laboratories carry out the testing.

III. COSTS AND BENEFITS TO PRIVATE BUSINESSES, INCLUDING SMALL BUSINESSES

A) ADEQ Contractor(s) -- ADEQ will contract with one or more private sector entities or statewide non-profit organizations representing water systems to implement the monitoring assistance program. The contractor(s) will prepare a sampling plan, in conjunction with ADEQ, to complete all required monitoring during the first monitoring cycle. Details of the contract(s) are not yet available, but ADEQ expects that all program costs will be covered by the fees to

be collected. Fees are projected to be over $928,000 annually. Thus, about $835,000 is expected to be available for Sampling Contractor(s) after ADEQ's 10% is subtracted (assuming all billable fees are collected).

B) Contract Laboratories -- Private laboratories that meet all qualifications and performance criteria established by ADEQ, and that contract with ADEQ contractor(s), will provide analytical testing services. They will be required to submit test results to ADEQ, the ADEQ contractor(s) and the PWS owners.

Analytical testing for the monitoring assistance program will constitute a business opportunity for the contracted laboratories. Their incremental business opportunity is represented by work that will be created to achieve compliance monitoring for all PWSs who have exhibited monitoring deficiencies in the last two monitoring cycles. Universal compliance will constitute a significant increase, from current levels, in the number of samples collected and tested. Payment for laboratory testing services, sampling, technical assistance and training are intended to be included in the $835,000 earmarked for the Sampling Contractor(s). It is assumed that laboratory contract prices will be reflected in the ADEQ contractor(s) negotiated contract fees and will contain a profit margin commensurate with the contractor(s)' and laboratory owners' desired rate of return.

B) Privately-owned Public Water Systems (PWSs) -- Private PWSs are composed of for-profit companies or non-profit organizations. ADEQ records indicate that private PWSs constitute more than three-quarters (78.6%) of Arizona systems, and slightly more than a fifth (21.4%) are made up of municipalities or quasi-government entities.

The 963 small systems in Arizona are located in all 15 counties of the State. They provide drinking water for over 710,000 of Arizona's residents. The biggest numbers of systems (less than half of the total) are found in three counties: Pima (181), Maricopa (148) and Yavapai (115). Those in Gila, Greenlee, La Paz, Navajo and Pinal serve more than half of these counties' populations. (See Table 1 in the Appendix.)

The largest groups of POEs are in the urban counties of Pima (254) and Maricopa (201); and in Yavapai (171), Pinal (117) and Cochise (107). These five counties combined have about two-thirds (63.7%) of the 1,334 known POEs. (As stated earlier, there are 50 PWS who have not identified their POEs.) 97.2% of known POEs are from groundwater

sources. Only 2.8% of POEs are surface water sources. The few POEs for surface water sources will require different sampling frequencies during the three-year monitoring cycle: an annual sample for VOCs and IOCs. The costs for surface water sampling and monitoring will therefore be greater. Small PWSs serving more than 3,300 people will also have greater SOC sampling frequencies, since they have to monitor during two non-consecutive quarters every three years.

MONITORING ASSISTANCE PROGRAM FEES

The fee formula will be based on the total number of service connections reported by PWS to ADEQ, adjusted for meter size. However, all PWS that have fewer than 100 service connections will be billed a flat fee of $350 per annum. Table A below shows that the base rate of $3.50 will apply to customers who have a three-quarter inch pipe (typical of residential areas). If the customer is a commercial or industrial establishment with a meter size of 8" or greater, its annual bill will be $186.66. The fees are based on data derived from the Department's service connections survey conducted by the Drinking Water Section, as indicated in the table below.

Table A.
ADEQ DRINKING WATER SECTION
Service Connections Inventory Survey

Meter or Service Connection Size	# of Service Connections	% of Total Reported Service Connections	Weight Factor	Average Unit Fee
>=3/4"	216,938	93.67%	1.00	$3.50
1.0"	9,650	4.17%	1.67	$5.85
1.5"	1,072	0.46%	3.33	$11.66
2.0"	2,714	1.17%	5.33	$18.66
3.0"	333	0.14%	10.00	$35.00
4.0"	212	0.09%	16.67	$58.35
6.0"	110	0.05%	33.33	$116.66
>=8.0"	563	0.24%	53.33	$186.66
Total:	231,592	100.00%		

The number of service connections indicated in Table A. are estimates based on the survey responses. Not all PWS responded to the survey, hence the data represent estimates. The breakdown of the data by County, and of the projected fees to be collected, are found in Tables 2 and 3 of the Appendix.

Table A shows that almost 94% of all reported service connections have a meter size of less than or equal to three-quarters of an inch. Thus, the vast majority of customers will pay the minimum fee of $3.50 per service connection per year. The meter weight factor is a multiplier based on the pipe diameter size, using as the base reference point the most commonly occurring meter size used for residential households (3/4 inch) which has a multiplier of 1.00. The 3/4 inch pipe has a maximum flow rate of 30 gallons per minute. A pipe of 1" in diameter has a maximum flow rate of 0.67 more than a 3/4 inch pipe; thus it has a meter weight of 1.67, and so on. This is a standard utility design method obtained from the Arizona Corporation Commission and verified with the American Waterworks Association.

The $350 Flat Fee

Table 3 provides a breakdown of PWS in each county with greater (>) or lesser (<) than 100 service connections. The majority of the smallest PWS (597 or 61.8%) which have 100 service connections or less, will pay a flat fee of $350 a year. It will be up to the PWS owner/operator to decide how to distribute this fee to its residents and customers. Because the number of service connections and householders served by the "smallest of the small" varies considerably, the decision to charge a flat fee simplifies the fee schedule and will equitably spread the costs among this group.

Some representatives of regulated entities have transmitted comments to the Department that this method of charging fees is "unfair" to the smallest of small PWS. In fact, the charge is untrue because, as Table 3 shows, 62% of all PWS (those with <100 service connections) are projected to pay only 18% of the fees. 38.2 % of the mid-sized PWS (those with >100 service connections) will pay 82% of the fees. The legislative intent was to help the smallest PWS achieve monitoring compliance, and the ADEQ MAP plan will achieve this if these rules are approved.

Attention is also drawn to Table 3 in the Appendix which gives the estimated total fees by county. Under the total fees column, it may be seen that the most fees are to be collected from five counties: Pima, Maricopa, Pinal, Yavapai and Cochise. This is not surprising because these are the same counties which have the most number of POEs and the most number of people served. PWS in these five counties serve 63% of the total population (709,692 people), own 63.6% of the POEs, and are projected to collect 57% of all fees. Since the number of POEs is the major cost driver, and since the opportunity to spread the costs increases with the population or number of households served, the data suggest that the MAP FEE Schedule is an equitable one. What is not clear at this stage is whether the base rate of $3.50 will be sufficient to cover all program costs. Contractor negotiations, the number of samples composited, and the number of waivers granted by ADEQ will all determine the financial feasibility of the program.

The vast majority of customers will pay the base fee of $3.50 per service connection per year; this equates to only 29 cents per household per month. The meter weight factor is a multiplier based on the pipe diameter size, using as the base reference point the most commonly occurring meter size used for residential households (3/4 inch) which has a multiplier of 1.00. The 3/4 inch pipe has a maximum flow rate of 30 gallons per minute. A pipe of 1" in diameter has a maximum flow rate of 0.67 more than a 3/4 inch pipe; thus it has a meter weight of 1.67, and so on. This is a standard utility design method obtained from the Arizona Corporation Commission and verified with the American Waterworks Association.

C) Contingency Costs and Benefits

1. Public Notification -- All non-monitoring PWS are required to give public notice. Furthermore, if an MCL exceedance is detected from the testing of a sample, the public served by the affected PWS has to be notified within 48 hours of completed test results. This is a contingency cost required by the existing rule. Local newspapers and other publications which contain public notices will benefit from new business which will stem mainly from PWS that are found to have MCL violations. The cost of public notification in the event of a detect or MCL violation will be borne by the relevant PWS owner or operator.

The costs for public notification vary with each newspaper, number of words contained in the public notice, day of publication and circulation size. The benefits of public notification derive from alerting the relevant public to possible questions regarding the safety of their drinking water supply. This will enable residents to seek alternative sources of drinking water until the problem is verified and resolved. The consuming public will thus avoid the adverse consequences of drinking potentially unsafe water.

2. Compositing -- Compositing, which is allowed only for SOC samples, may occur when certain conditions are met. Compositing can cut costs significantly because it allows up to five samples to be tested as a single sample. Savings could be as much as 80% for a group of samples if the appropriate conditions apply. For systems serving fewer than 3,300 people, compositing between systems may be done; for those serving

more than 3,300, compositing within the system may be carried out.

3. Waivers -- Waivers are designed to reduce sampling frequency and therefore, the costs of monitoring, when the risks of contamination are determined by ADEQ to be low. The Department is awaiting information from the SWAP program which will be used by ADEQ staff to grant waivers if it is determined that a system is unlikely to become contaminated, or that any contamination will remain reliably and consistently below the MCLs during the waiver period. Thus, significant savings could also occur from a waiver program.

4. Default Rate -- On the basis of the Department's experience with the SDW Partnership 1998 program, ADEQ has recognized the possibility of a default rate (or non-payment of fees) that could result from an unwillingness of some PWS owners/operators, their residents and customers, or both, to pay fees. HB 2231 appropriated $500,000 for ADEQ to accomplish two things: a) improve the Safe Drinking Water (SDW) database; and 2) pay for a reduced rate for sample analysis for selected 1998 eligible systems.

Under this program, ADEQ contacted 308 systems that were eligible for sampling in calendar year 1998, and had fewer than 200 service connections. ADEQ notified these systems of their eligibility to participate in the 1998 monitoring program, the costs of which would be paid for by the legislative appropriations. ADEQ requested the 308 system owners to sign an authorization form allowing ADEQ to pay for the systems' sampling and testing. Out of the total, only half signed and returned their authorization forms, despite the fact that the costs were subsidized by State funds, and there was no cost to the system owners (a stamped, self-addressed envelope was enclosed to facilitate prompt replies.) The magnitude of this non-response rate indicates that program costs may not be the overriding factor in system owners' participation (or non-participation) in the monitoring program.

Thus, the Department estimates that 50% of PWSs with fewer than 200 service connections and 10% of those with more than 200 service connections may be unwilling to pay fees. There is a distinct possibility,

therefore, that the Department will experience a similar default rate composed of non-payments for the 1999 to 2001 monitoring cycle. If this happens, collected fees will be lower than projected by about $144,000 or 15.6%. Under this scenario, total collections would be about $784,000 annually; ADEQ's portion would be about $74,800 and the allocation for the Sampling Contractor(s) (including laboratory testing), $709,200. If the default rate turns out to be higher than anticipated, the amounts for funding of the monitoring assistance program would be even less.

IV. COSTS AND BENEFITS TO RESIDENTS AND CONSUMERS

Residents and consumers of participating PWS are expected to be affected in different ways, depending on whether or not the PWS has done any monitoring in the past, and on whether the PWS chooses to pass on the monitoring costs to its customers. The biggest incremental impact will be on those consumers whose water providers (the PWSs) have not monitored at all, and who will now commence charging fees for chemical monitoring.

If the PWS has monitored in the past, their residents and consumers will be affected by how much of the proposed monitoring fees differ from what PWS charged in the past. Although customers' costs are fixed by the fee schedule, contractor(s) costs will be highly dependent on whether their sampling plan will be able to accomplish monitoring on schedule and within the monetary limits established by the fees.

ADEQ believes that with implementation of the monitoring assistance program, the entire population of Arizona served by small drinking water systems will be assured of current information about their water quality.

APPENDIX

Table 1.

Arizona Counties by Number of PWS, POE's and Population Served

	Total	Ground Water	Surface Water	Total	Population	% of Total County
COUNTY	# of PWS	# of POE's	# of POE's	POE's	Served	Population Served
Apache	27	48	0	48	14,319	21.6%
Cochise	72	106	0	106	54,874	44.3%
Coconino	34	42	5	47	46,584	38.3%
Gila	66	81	4	85	35,226	71.6%
Graham	9	11	1	12	6,170	17.8%
Greenlee	9	9	2	11	10,271	112.6%
La Paz	28	28	9	37	11,094	58.4%
Maricopa	152	199	3	202	107,279	3.8%
Mohave	59	89	2	91	40,854	29.5%
Navajo	50	81	0	81	54,201	58.6%
Pima	187	253	2	255	126,301	15.3%
Pinal	93	117	0	117	95,389	60.5%
Santa Cruz	15	25	0	25	15,655	41.4%
Yavapai	119	170	1	171	63,298	42.6%
Yuma	46	41	9	50	28,177	20.8%
TOTALS:	966	1,300	38	1,338	709,692	14.9%

* The population served as reported by PWS owners/operators in Greenlee County exceeds the DES Population Statistics Unit’s July I, 1998 population estimate for that county.

Table 2.									
Arizona Counties by Number & Size of Service Connections, and Unit Fee									
									SC
COUNTY	<=3/4"	1.0"	1.5"	2.0"	3.0"	4.0"	6.0"	>=8.0"	Totals
	$3.50	$5.85	$11.66	$18.66	$35.00	$58.35	$116.66	$186.66	
Apache	4,330	97	16	56	5	5	4	0	4,513
Cochise	16,377	974	56	198	9	9	3	3	17,629
Coconino	12,463	1,269	101	210	20	36	7	6	14,112
Gila	13,166	157	2	71	7	4	3	13	13,423
Graham	1,509	2	3	6	0	0	0	0	1,520
Greenlee	2,571	35	24	35	9	2	1	0	2,677
La Paz	5,038	168	54	58	15	7	3	1	5,344
Maricopa	33,971	4,563	306	928	20	43	10	12	39,853
Mohave	16,737	242	27	134	17	8	4	1	17,170
Navajo	19,318	187	21	201	8	9	2	0	19,746
Pima	29,027	723	201	213	168	32	26	12	30,402

Pinal	19,592	649	55	232	22	33	23	9	20,615
Santa Cruz	4,996	95	24	57	13	3	0	0	5,188
Yavapai	24,576	323	141	216	15	15	17	3	25,306
Yuma	7,989	82	26	63	2	1	6	0	8,169
PWS w/ no POEs ID'd	5,706	84	15	36	3	5	1	0	5,850
TOTALS:	217,366	9,650	1,072	2,714	333	212	110	60	231,517
% of TOTAL:	93.9	4.2	0.5	1.2	0.1	0.1	0.05	0.03	100.0

Table 3.
Number of PWS in each County with > and < 100 SC's

and their estimated fees

COUNTY	Total PWS	PWS w/ >100 SC's	PWS w/ <100 SC's	Estimated Fees	>100 SC's	<100 SC's $350
Apache	27	6	21	$22,557	$15,207	$7,350
Cochise	72	25	47	$81,795	$65,345	$16,450
Coconino	34	15	19	$64,814	$58,164	$6,650
Gila	66	25	41	$62,510	$48,160	$14,350
Graham	9	5	4	$6,932	$5,532	$1,400
Greenlee	9	6	3	$103,543	$102,493	$1,050
La Paz	28	16	12	$24,720	$20,520	$4,200
Maricopa	152	48	104	$198,431	$162,031	$36,400
Mohave	59	31	28	$72,617	$62,817	$9,800
Navajo	50	24	26	$79,324	$70,224	$9,100
Pima	187	69	118	$153,344	$112,044	$41,300
Pinal	93	29	64	$108,231	$85,831	$22,400
Santa Cruz	15	5	10	$22,442	$18,942	$3,500
Yavapai	119	47	72	$116,680	$91,480	$25,200
Yuma	46	18	28	$37,088	$27,288	$9,800
TOTALS:	966	369	597	$1,155,028	$946,078	$208,950
Percent:		38.2%	61.8%		81.9%	18.1%

10. A description of the changes between the proposed rules, including supplemental notices, and final rules (if applicable):

Minor changes to grammar and punctuation, and stylistic changes were made at the request of GRRC staff.

The table of contents is amended to correct a typographical errors in the heading. "DEFINITIONS" was deleted and replaced with "GENERAL REQUIREMENTS".

R18-4-122 is amended to delete all existing text. New text is added which states, "Inspections conducted by the Department shall be conducted in accordance with A.R.S. § 49-1009." See analysis and response to comment #6.

R18-4-225 amended to delete the 2nd option for R18-4-225 which follows the word "OR". See analysis and response to comment #1. Additionally, R18-4-225(B) is amended to clarify that the annual unit fee of $3.50 is used to determine to total fee to be paid under R18-4-225(D).

R18-4-101(6) was revised to define the term "Baseline sampling" instead of "Baseline monitoring" and revised for clarity as follows:

"Baseline ~~sampling~~ monitoring" means the routine monitoring of contaminants covered under the monitoring assistance program for the purpose of determining compliance with the ~~contaminants~~ MCLs listed in Article 2, and the monitoring requirements listed in Article 4, not including repeat ~~or re-sampling~~ monitoring necessary for compliance after detection of a contaminant or an MCL violation.

R18-4-104(A) is amended to delete the phrase "except that the contractor shall report for an analysis taken under the monitoring assistance program," is deleted for clarity.

R18-4-104(A)(2) is amended to replace "is required by R18-4-208(I)" with "shall" for conciseness.

R18-4-104(K) is amended to add "or a contractor" after "supplier", and to delete the phrase "except that the contractor shall report for an analysis taken under the monitoring assistance program under Article 2,".

R18-4-104(K)(1),(2),(3) and (4) are amended to delete the phrase "A water supplier that monitors and to add the word "For" and "pursuant to" is changed to "under". These amendments are made for clarity

R18-4-104(L) is amended to change "an analysis" to "a monitoring requirement" for clarity.

R18-4-120(B) is amended for clarity as follows:

B.If a public water system fails to monitor, the Department may monitor to determine compliance with MCLs. ~~Monitoring by the Department shall not be used by the public water system~~ A public water system shall not use Department monitoring to satisfy monitoring requirements prescribed by this Chapter. This subsection does not apply to monitoring under the monitoring assistance program.

In R18-4-122(A), the sentence "An inspection conducted by the Department shall be conducted in accordance with A.R.S. § 49-1009" is amended to "A Department inspection shall comply with A.R.S. § 49-1009." for clarity and conciseness.

R18-4-122(B) is amended to delete "a water supplier" after "If"; "the Department or" is deleted after "restricts"; "a" is added before "contractor" in two places; "prevents a Department or" is deleted; and, "employee is deleted before "from". These changes are made for clarity and conciseness. R18-4-122(B) is amended to add "or prevents" before "a contractor from collecting" to correct a typographical error.

R18-4-206(H) is amended to add "a water supplier or contractor take" after "require that"; "taking" is added after "2 weeks after"; "was taken" is deleted after "initial sample"; and "except those analyses covered under the monitoring program. The contractor may take a confirmation sample, with approval of th Department, within the time frames prescribed above" is deleted. These changes are made for clarity and conciseness.

R18-4-212(D) is amended to delete "or the contractor may composite samples taken on behalf of a CWS or NTNCWS" is deleted for conciseness.

R18-4-212(K)(3) is amended to add "Sampling conditions for waivers:" to conform with the rest of the

subsection.

R18-4-212(K)(4) is amended to add "Vulnerability assessment updates:" to conform with the rest of the subsection. "The first sentence is amended to add ",or a contractor on behalf of a CWS or NTNCWS," is added after "sampling point" for clarity.

R18-4-224(D) is amended to delete "conduct monitoring" and add "monitor" for conciseness. The phrase "except nitrate, nitrite and asbestos" is deleted for clarity.

R18-4-224(E) is amended to replace "retain responsibility for compliance" with "comply".

R18-4-224(F) is amended to replace "PWS" with "public water system" and to replace "or" with "and" before "number" for clarity.

R18-4-225(A),(B), and (C) is revised for clarity and conciseness as follows:

A. The Department shall bill a ~~A~~ public water system that serves 10,000 or fewer persons ~~shall be billed~~ annually ~~by the Department and shall pay fees to the Department for its costs under the monitoring assistance program~~.

B. ~~In~~ For the billing year 1999, a ~~PWS~~ public water system with $ 100 service connections shall ~~pay an annual~~ use a unit fee of $3.50 to determine the total fee to be paid under R18-4-225(D). In years 2000 and 2001, the ~~PWS~~ public water system shall pay ~~an annual~~ a unit fee of $3.50 adjusted on January 1 to reflect the weighted percentage increase, if any, in the contract costs as of the close of the 12 month period ending on December 31, of ~~that~~ the previous year.

C. ~~In~~ For the billing year 1999, a ~~PWS~~ public water system with ~~fewer~~ less than 100 service connections shall pay an annual fee of $350. ~~In~~ For the billing years 2000 and 2001, ~~the PWS~~ public water system shall pay an annual fee of $350 adjusted on January 1 to reflect the weighted percentage increase, if

any, in the contract costs as of the close of the 12 month period ending on December 31, of ~~that~~ the previous year.

R18-4-225(D) is amended to change "June 30" to "October 1" to correct a typographical error.

R18-4-225(E) is amended to replace "R18-4-225" with "this Section" for conciseness.

R18-4-226(A) is deleted. It repeats authority granted in statute. Subsequent subsections are renumbered.

R18-4-226(G) is renumbered to (E) and amended for clarity as follows:
A ~~PWS~~ public water system that fails to pay its fees ~~required~~ shall be subject to the penalties ~~in accordance with~~ listed in A.R.S. § 49-354.

The second sentence in R18-4-404(G) is amended to replace "that may be called" with "that a person may call". The last sentence is amended to add "the public water system shall" before "additional" and delete "shall be conducted"; "additional monitoring" is deleted and replaced with "monitor". These changes are made for clarity and conciseness.

R18-4-405(E) is amended to move the last sentence to become the second sentence. The phrase "under the monitoring assistance program" is deleted from the third sentence for conciseness.

11. A summary of the principal comments and the agency response to them:

1. ISSUE: ADEQ received several comments on R18-4-225. One comment stated that the purpose of the legislation was to reduce the burden on small systems. Charging a flat fee of $350.00 on systems that cannot afford it, instead of $3.50 per service connection

increases, rather than reduces, the burden. A comment was also received that recommended that systems serving less than 100 service connections should pay a minimum of $350.00 per system.

ANALYSIS: ADEQ has reviewed public comment on both sides of this issue. After careful consideration, ADEQ determined that the minimum fee relieves some of the subsidization that the larger public water systems (PWS) would incur under the program, without placing an undue economic burden on the smallest water systems. Currently, the cost for monitoring at this system would be approximately $1200.00 for one point of entry. Under the monitoring assistance program, the cost would be $350.00.

RESPONSE: In R18-4-225 in the Notice of Proposed Rulemaking, ADEQ proposed 2 options for a PWS with fewer than 100 service connections. One option provided for an annual fee of $350, the other provided for annual unit fee of $3.50. ADEQ will delete the provision for an annual unit fee of $3.50. ADEQ will delete 2nd option for R18-4-225 which follows the word "OR".

2. ISSUE: The $3.50 unit cost is going to affect us obviously financially, and we may be one of the smaller systems that cannot afford to do monitoring in the future. We feel that we are subsidizing the smaller systems and we regret that the bigger systems were not made to participate in this program.

ANALYSIS: The Department considered several options for charging fees under this program. Some small water systems believed that mandating a flat $350 fee for systems under 100 service connections would provide increased revenue and require the smallest systems to pay a larger and more appropriate share of the program costs. Other systems argued that the smallest systems should pay based on a formula similar to that of the other small systems. They believed that

the smallest systems should not pay proportionally, or per service connection, just because they are under 100 service connections. See Analysis to Comment 1 above.

The authorizing legislation did not include any provisions relating to fee methodology for small systems.

The determination of what size systems will participate in the monitoring assistance program was made by the legislature. Any change that would make participation by the larger systems mandatory must also come from the legislature, not ADEQ.

3. ISSUE: Since fire service connections are not in continuous use and do not generate revenue, they should be exempted from the fee process.

ANALYSIS: ADEQ believes that the commenter means fire hydrants as there is no fire service connection definition in drinking water rules. ADEQ agrees. Fire service connections are not service connections for which a fee will be charged. The definition of service connection is defined in drinking water rules. It is this definition which will be used in charging fees.

RESPONSE:No change.

4. ISSUE: The commenter expressed concern with the exemption of state agencies from the fees. The commenter also stated that the fees should be based on the number of service connections for small systems, instead of a flat fee, so that those systems could afford the fee for a small number of connections.

ANALYSIS: State agencies that are public water systems are exempt from the payment of fees for the monitoring assistance program under A.R.S. § 49-203(A)(7). ADEQ

can neither change the statutory exemption nor the legislation that mandates this rulemaking. See the response to issue #1 for the second question.

RESPONSE: No change.

5. ISSUE: R18-4-104 seems to put the burden on the PWS to notify ADEQ of failure to comply. The PWS should not have the burden since ADEQ is responsible to administer the Monitoring Assistance Program.

ANALYSIS: Federal rule requires public water systems to report all failures to monitor for all contaminants. Additionally, ADEQ is overseeing the monitoring assistance program, all monitoring requirements are ultimately the responsibility of the PWS. ADEQ has enforcement discretion if the error is the fault of the contractor.

RESPONSE: No change to the rule.

6. ISSUE: R18-4-122 would allow ADEQ to go on a witch hunt for NOVs [violations] and may be unconstitutional and not allowing due process. If there is probable cause, get a search warrant. The inspections should be prearranged with an indication of what is to be inspected.

ANALYSIS: Even though the commenter refers to inspections, ADEQ believes the comment refers to the contractor's visits, not an inspector's visit. As established in A.R.S. § 49-360(J), the taking of a compliance sample by a contractor under the monitoring assistance program is not an inspection. No enforcement actions will be taken as a result of these site visits. The contractor who will take the compliance sample will be the agent of ADEQ solely for the purposes set forth in A.R.S. § 49-360. The Department will retain its authority to enforce other provisions of existing law, including conducting inspections to assure compliance with those laws.

Additionally, the taking of compliance samples under the monitoring assistance program is not an activity that requires a search warrant. The contractor will make arrangements in advance with the owner or operator for entering the property for taking compliance samples and the owner may designate someone to accompany the contractor while at the facility.

While the activities of the contractor under the monitoring assistance program is not an inspection, in light of legislation passed in SB 1034 during the 1998 legislative session, ADEQ has revised R18-4-122(A) to comply with the requirements of A.R.S. § 41-1009. A.R.S. § 49-1009 sets forth requirements of an agency inspector or regulator who enters any premises of a regulated person to conduct an inspection. Proposed language is deleted and new language is added which states, "Inspections conducted by the Department shall be conducted in accordance with A.R.S. § 49-1009."

RESPONSE: R18-4-122(A) is revised to state "An inspection conducted by the Department shall be conducted in accordance with A.R.S. § 49-1009".

7. ISSUE: The ADEQ proposes to amend R18-4-122 by adding Section (B) that if the water system denies, restricts, limits or obstructs access to a facility, the PWS shall be responsible for the resulting non-compliance. All facilities are located within secured buildings, security gates, etc. for the protection of the facility and the general public. The water supplier must restrict access to all water system facilities for these purposes. The wording should change to reflect that if the PWS unreasonably denies access or unreasonably restricts access to the facility, then it may assume such responsibility. From a practical matter, all visits to facilities by the ADEQ's contractor must be scheduled in advance. A water system representative must accompany all such visits since there is a question of

liability and risk that unaccompanied visits would pose to the water system owner.

ANALYSIS: Under current drinking water rules, ADEQ already has the authority to conduct sampling at any time. However, ADEQ understands the need to restrict access to the facility for security reasons and the rule does not require security to be compromised at the facility. It requires that the facility provide access to the contractor who needs to enter the facility for purposes of taking a compliance sample under the monitoring assistance program. The contractor will be required by contract to contact the facility in advance to set up an appointment for taking the sample and a water system representative may accompany the contractor while the contractor is at the facility.

The requirement that the water system shall be responsible for non-compliance is also not a new one. Under current drinking water rules, and under federal regulations, it is the PWS that is responsible for compliance. The monitoring assistance program will not change those requirements.

To establish a standard which states that if the facility "unreasonably denies access or unreasonably restricts access to the facility, then it may assume such responsibility" would establish a requirement that is subjective, difficult to determine, enforce, and would conflict with current state and federal rules.

RESPONSE: No change.

8. ISSUE: There is a problem with complying with R18-4-206(H). Because the holding period is longer than two weeks, the lab results may not be received or done by the time a confirmation sample is required. In some cases when the sample analysis exceeds two weeks, the PWS is in violation before any results are received. The rule should read, "

No later than two weeks after the initial sample results were received at the sampling point." This would allow time for a new sample bottle and the actual sampling to take place.

ANALYSIS: R18-4-206-(H) which is based on federal rule, states that " the Department may require that a confirmation sample be taken as soon as possible after the initial sample was taken, but not to exceed two weeks, at the same sampling point." The confirmation sample is discretionary by ADEQ, not mandatory. There is no violation associated with the failure to take a confirmation sample if ADEQ does not require it. ADEQ would only require a confirmation sample once ADEQ had been notified of the results. Since it is the responsibility of the PWS to notify ADEQ of the results, the water system would know the results before ADEQ. If the two week period has already elapsed, ADEQ could not require a confirmation sample. If the water system was concerned about the time frame and wished to petition ADEQ to take a confirmation sample, the water system could request a quicker turn-around time from the laboratory on the analyses of concern. Further, since the two week requirement is based on federal rule and since no violation is associated with confirmation sampling, there is no change to the rule.

RESPONSE: No change.

9. ISSUE: HB 2231 provides that the ADEQ shall establish a monitoring assistance program "subject to available funding". The concern is that ADEQ will accept monies from a company, but experience a budget shortfall prior to the sampling year for the company's pubic water system. In that case, who will pay for the required monitoring? Will ADEQ refund monies collected if monitoring is not performed?

ANALYSIS: The legislation requires ADEQ to contract for baseline monitoring for all IOCs, VOCs and SOCS with the exception of nitrate, nitrite, lead, copper, and

asbestos. This includes contracting for the collection, transportation, and analysis of samples, as well as contracting for training PWS staff, and on site technical assistance for monitoring for all contaminants covered by the Federal Safe Drinking Water Act. The amount of services provided will be determined by the cost. ADEQ will first contract for baseline sampling including collection, transportation, and analysis of samples. If funds allow, ADEQ will then contract for training, and then on site technical assistance. The program is subject to available funding under A.R.S. § 49-360(B). If revenues collected are insufficient to cover even baseline monitoring, ADEQ will refund the money and not establish the program.

RESPONSE: No change.

10. ISSUE: ADEQ proposes to amend R18-4-104(A) and (L) to clarify that the water supplier is required to report ADEQ's contractor's failure to comply with monitoring requirements for analyses taken under the monitoring assistance program requirements. Since the ADEQ contracts with the contractor, and is ultimately responsible for ensuring that the contractor perform all of its duties under such a contract, the water suppliers should not be required to report such failures to the ADEQ. Instead, the ADEQ should report to the water suppliers when ADEQ's contractor has failed to comply with monitoring requirements.

ANALYSIS: ADEQ intends to monitor a contractor carefully and to hold the contractor responsible for contractual obligations. However, this does not release the PWS from its legal requirement to assure that all monitoring is performed.

RESPONSE: For clarity, in R18-4-104 ADEQ will change "an analysis" to "a monitoring requirement". ADEQ will make other changes to R18-4-104 for clarity and conciseness.

11. ISSUE: ADEQ proposes to amend R18-4-206 to establish that the contractor may take and composite samples. This proposed section would also establish that the water supplier shall be responsible for the cost for re-sampling and analyses taken under the monitoring assistance program. Since there is no cost benefit to those water systems that have completed monitoring or qualify for reduced monitoring, it does not seem logical that costs associated with required re-sampling, or even increased sampling due to exceedance of contaminant triggers, should be the water system's financial obligation. This will only add another layer of complexity to a monitoring program that has been overly complex from the beginning. The contractor should perform all sampling, except for those contaminants excluded by HB 2231, whether it is a repeat sample, follow-up sample, increased monitoring, etc.

ANALYSIS: There is no reference to this in R18-4-206, however, during the 1997 legislative session, the Arizona Legislature passed A.R.S. § 49-360 which authorized the ADEQ to establish a centralized monitoring program to assist public water systems in complying with the monitoring requirements under the Federal Safe Drinking Water Act (SDWA). The original program developed by ADEQ, the centralized monitoring program, included all re-sampling and increased sampling. However, some PWSs and water association representatives believed that the program could eliminate these types of samples to decrease the cost of the program. After the Centralized Monitoring Program rule was tabled by the Governor's Regulatory Review Council, the legislature again considered the issue and passed HB 2231 requiring ADEQ to establish the monitoring assistance program. As a result, the fee per service connection under the monitoring assistance program is less than the fee under the centralized monitoring program.

The provision in A.R.S. § 49-360(A) that requires that ADEQ "...provide for the collection, transportation and analysis of *baseline* samples..." makes it clear that the increased cost is not to be borne by ADEQ, but by the PWS. However, baseline sampling is defined in R18-4-101(6) and excludes repeat monitoring. The cost of any repeat monitoring required due to a composite detect will not be the responsibility of the PWS. In that case, the contractor will re-sample the composite locations to determine the POE contributing to the detect. That POE will then have increased monitoring requirements that will be the PWS's responsibility.

RESPONSE: For clarity, ADEQ will change the defined term to "baseline sampling" from "baseline monitoring".

12. ISSUE: HB 2231 allows for certified operators to take the required water samples, yet the proposed rule does not appear to provide for water system certified operators to collect samples. This appears to contradict HB 2231. Certified operators of the water supplier should be allowed to collect samples for the contractor, who would then simply oversee the collection, analyses and reporting. This provision will save the monitoring assistance program considerable costs and resolve scheduling coordination problems.

ANALYSIS: The primary focus and intent of HB 2231 was to assure the cost-effective utilization of private contractors. The legislation was designed to provide ADEQ and its contractors the maximum flexibility to implement the contract provisions. Depending on the nature of the contract allowing certified operators to collect samples, the provision may yield costs saving or it may produce additional burdens.

A.R.S. § 49-360(A) provides that ADEQ shall contract with a private party or

nonprofit organization representing water systems to implement the monitoring assistance program. Additionally, the statute allows for certified operators to take samples. This apparent conflict in authority is interpreted by ADEQ to mean that a certified operator could take samples if he or she is a contractor, or employee of a contractor. This will be resolved during the contract negations with the vendors, depending on the structure and business approach of the contractor, and the assurances ADEQ requires to guarantee quality.

It is clear by the legislative intent that the Monitoring Assistance Program is designed to be managed in a cost-effective and flexible manner. The rule is consistent with these approaches as it attempts to keep costs down. By retaining regulatory flexibility in the rule, ADEQ can exercise flexibility in the contract negotiations.

RESPONSE: No change.

13. ISSUE: Monitoring Assistance Program Benefits list "Public health benefits associated with health and safety derived from delivery of safe drinking water". This implies that safe drinking water is not currently delivered to the public. The monitoring assistance program will not change the quality of water received, only the data collected and reported to ADEQ. Unless MCL exceedances are discovered during the monitoring under monitoring assistance program, there will be no change in water quality.

ANALYSIS: ADEQ agrees with this basic reasoning. However, the Monitoring Assistance Program is being established because of the large number of systems who have not monitored. For these systems, the water quality is unknown, as are the potential health risks. By monitoring and discovering the water quality of these

systems, ADEQ can prioritize its resources to resolve actual health risks. This will lead to an improvement in water quality as well as relieving the anxiety of those consumers whose water quality is at this time unknown.

RESPONSE: No change.

14. ISSUE: The statement that "There are documented cases of MCL exceedances in Arizona that have posed a clear threat to public health" is certainly true. However, the majority of MCL exceedances are generally a result of total coliform and nitrate MCL violations, which are not covered by the monitoring assistance program. This gives disproportionate weight to the benefits derived from the monitoring assistance program.

ANALYSIS: Although, nitrate and total coliform MCLs dominate the total number of MCL violations, several issues must be considered in interpreting the consequences of MCLs. First, the sample frequency must be considered. Total coliform samples are based on the total population of each system, and are taken on a monthly basis. The approximate ratio of total coliform sample to chemical sampling is 100 total coliform samples for one chemical sample. Thus, the total number of MCLs follows a similar ratio. Nitrate sampling is based on the number of points of entry into the distribution system and is an annual sample. The ratio of nitrate sampling to other chemical sampling is 3 nitrate samples per one chemical sampling. The ratio of nitrate MCLs to chemical MCLs follows a similar pattern.

Second, the health risks of total coliform and nitrate are immediate, often with 24 to 72 hours following ingestion. Under most circumstances, the health effects of microbiological contamination are transitory, with complete recovery of the victim. Nitrate poisoning has more severe consequences, and can result in

death. However, if proper medical treatment is obtained in time, the victim will recover completely. Chemical MCLs have a different health effect. Damage is done over a number of years and affects different populations and age groups differently. Physical impacts can be cancer, nervous system disorders of a permanent nature, liver and kidney disorders of a permanent nature, and various other health effects. These health effects are usually permanent in nature and may lead to death of the victim. Health expenses for these disorders are far more costly and more long term in nature.

Third, water treatment procedures for total coliform violations is usually disinfection. Disinfection may only be needed at certain times of the year or on infrequent occasions. Disinfection is a simple technology and far less expensive than other water treatment technologies. Both nitrate and other chemical MCLs involve far more complex and expensive technologies which may require several years to design and install, so that the financial consequence of a chemical exceeding the MCL is far greater. When all of these issues are considered, even one chemical MCL may have severe, long reaching consequences.

Finally, the number of monitoring violations is a consideration. All MCLs are the result of monitoring. If no monitoring is done, the actual number of chemical MCLs may be drastically understated. The true impact of chemical MCLs is not known. It is this lack of information and the potential for long term health effects from chemical MCLs that justifies the serious consideration given to the implementation of the Monitoring Assistance Program.

MCL and Monitoring Violations for Nitrate and Total Coliforms

	MCLs 1996	MCLs 1997	Monitoring Violations 1996	Monitoring Violations 1997
Total coliform	197	193	2232	3192
Fecal coliform	14	12		
Nitrate/Nitrite	81	85	552	1472
Total of all Coliform and Nitrate MCLs	292	290	2784	4664

Other Chemical MCLs and Chemical Monitoring Violations

	MCLs 1996	MCLs 1997	Monitoring Violations 1996	Monitoring Violations 1997
IOCs	110	78	2663	1286
VOCs/SOCs	14	29	11640	17681
Radiochemicals	7	5	113	240
Total IOCs, VOCs, SOCs, Radiochemicals MCLs	131	112	14416	19207

RESPONSE: No change

15. ISSUE: A commenter cites the economic impact statement which states "Private Sector Suppliers...will benefit from new businesses that will accompany the required monitoring". Much of the sampling that is required is already being performed, except for perhaps the smallest of water systems. The increased business may only result from monitoring the smallest of water systems, which may represent an insignificant change in the level of

business related to such monitoring.

ANALYSIS: There has been a fairly high non-compliance rate for drinking water chemical monitoring among small PWS in Arizona. During the 1993-1995 monitoring period, for example, only 26% of 939 systems were in full compliance with the SOC requirements. Another 43% were in partial compliance (i.e., they monitored for fewer than the required number of SOC's); and 31% did not monitor at all. Thus, about 74% of all small systems exhibited monitoring deficiencies of one kind or another. Today, there are about a 1000 public water systems serving fewer than 10,000 people, and ADEQ has no evidence that the compliance rate has increased significantly.

It is the case that the majority of the small systems are among the smallest in terms of the number of people served. However, the size of population served has no bearing on the required number of samples that will be needed to comply, since every POE has to be sampled, unless waivers are granted, regardless of how many people obtain their drinking water from that particular source. To bring every PWS into compliance will therefore require monetary resources that are not being expended right now, which implies that the suppliers or providers of services for sample collection and analytical testing will benefit from the incremental work that will need to be carried out. In addition to the initial sampling and testing, there may be work required for re-samples and re-tests. Under the monitoring assistance program, sample collection and analytical testing will be done by private sector entities contracted by ADEQ.

RESPONSE: No change.

16. ISSUE: Regarding a statement in the economic impact statement that the Arizona Corporation

Commission (ACC) staff may see more applications coming into the agency for water utility surcharges, but there will be no incremental costs and benefits to the agency [ACC]," the ACC has seen no requests for water utility surcharges as of this date. While the ACC has developed a form to facilitate the process of requesting such a surcharge, it is uncertain how the ACC will treat such requests, especially if they involve a voluntary participant in the monitoring assistance program.

ANALYSIS: A.R.S. § 49-360 does not require that costs be passed on to the customers. If costs are not passed on to customers, ACC does not play a role.

Only about 40% of small public water systems are regulated by the ACC. And only public water systems serving 10,000 or fewer people are required to participate in the monitoring assistance program. Thus, the majority of small public water systems will not need to apply to the ACC for water utility surcharges. If ACC has seen no requests for surcharges to date, it could be because program implementation for the monitoring assistance program has not yet commenced. It will be up to the PWS owner/operator to determine whether costs will be passed on to their customers. The amount ADEQ will bill the PWS will depend on the number and size of service connections they report to ADEQ. What PWS owners will bill their customers may or may not involve an application for a surcharge. It could be that some PWSs will be paying less under the monitoring assistance program than what they paid when they monitored on their own.

Voluntary participants in the monitoring assistance program will consist of public water systems serving more than 10,000 people. As of this date, no PWS has applied to join the monitoring assistance program. If they do, it will be up to them

to decide whether or not to apply to ACC for a surcharge. To apply for a surcharge, two conditions must be met: a) the PWSs must be regulated by ACC; and b) the costs for monitoring may not exceed, more than 10%, of prior monitoring costs reported to AAC.

Generally, a PWS has two options: 1) submit an application to ACC for a general rate case; or 2) apply for a surcharge mechanism. According to the ACC, a general rate case is made to bring utility charges into alignment with current economic conditions. A surcharge mechanism can be used, to cover costs that are specific only to drinking water monitoring. A general rate case application typically takes a maximum of between 120 to 180 days to process. A surcharge application is completed within 30 days.

RESPONSE: No change.

17. ISSUE: A commenter argues that the statement in the economic impact statement that "Universal compliance will constitute a significant increase, from current levels, in the number of samples collected and tested" is not true for the majority of the larger water systems. The commenter states that this may be true for water systems serving less than 200 people but it is not true for the larger systems serving less than 10,000 people, nor is it true for those water systems serving more than 10,000 people.

ANALYSIS: The commenter refers to 200 people; however, ADEQ believes that the commenter is actually referring to the legislation which references 200 service connections. ADEQ responds to the question in terms of 200 service connections. As demonstrated on the table below, systems serving less than 10,000 people and having less than 200 service connections do have

approximately 12 violations more per point of entry than systems with more than 200 service connections. Systems greater than 10,000 have 28.9 violations per point of entry. All of these numbers represent an unacceptable risk to human health. However, the noncompliance of systems greater than 10,000 is not assumed to be from a lack of resources as is the noncompliance from the systems serving less than 10,000.

It is clear that the monitoring assistance program will result in at least 65,000 less monitoring violations or 81% of the total number of violations per compliance period. ADEQ feels these percentages justify the statement "Universal compliance will constitute a significant increase, from current levels, in the number of samples collected and tested."

Chemical Monitoring Violations by Number of Service Connections

Total Public Water Systems	Total Number Points Of Entry	IOC Monitoring Violations 1996/1997	VOC Monitoring Violations 1996/1997	SOC Monitoring Violations 1996/1997	Total Monitoring Violations 1996/1997	Monitoring violation per point of entry
745 Systems <200 Service Connections	831	138	10,251*	33,340*	44,560	53.62
207 Systems ≥200 Service Connections	493	114	2,258*	17,575*	20,440	41.46
Systems Serving More than 10,000 People	537	53	1,721*	13,727*	15,501	28.87

(*These numbers reflect the total number of public water systems who must monitor for a single 3 year compliance period. However, only two thirds of the total number of violations is represented as the 1998 violations will not be calculated until the end of the 1998 calendar year. The actual % of violation per point of entry will be higher when those violations are calculated and added into the violation totals.)

18. ISSUE: What provisions has the ADEQ made with its contractors concerning liability, licensing, insurance, establishment of credentials, certifications, etc.? This PWS will require that anyone entering its property provide proof of liability insurance and will require certain

other basic measures of protection from ADEQ's contractor.

ANALYSIS: A.R.S. § 49-360 requires that ADEQ establish specific criteria for measuring contractor qualifications and performance. Contractors will need to meet these statutory requirements concerning credentials, licensing, and certification as established in ADEQ's solicitations for contract. ADEQ has not yet entered into a contract for these services. ADEQ will consult with the state Risk Management Division regarding any additional liability and insurance needs beyond standard contract provisions.

RESPONSE: No change.

19. ISSUE: A commenter that owns several water systems of various sizes commented that the fee structure proposed in the monitoring assistance program will still ultimately place the largest burden of the costs of the monitoring assistance program on the larger water systems participating in the monitoring assistance program. This disproportionate sharing of costs places the burden of small system compliance on the backs of the larger water systems' customers. The proposed fee structure will increase the cost to the commenter's company for the water systems that serve less than 10,000 people by a significant amount and would result in a even greater increase in costs for the water systems serving a population greater than 10,000 people. It is unlikely that many, if any, water systems serving a population greater than 10,000 people will choose to participate.

ANALYSIS: First, not all small systems are in noncompliance, nor are all medium and large sized systems in full compliance with monitoring for the contaminants covered by the monitoring assistance program. Second, the legislation defines small water systems that must participate in the program as all systems serving less than 10,000 persons. There is no distinction in the legislation by population within this group and neither the term "medium" nor "large" size system is defined.

Even among water systems with similar sized populations, individual water system

compliance status and costs vary greatly. Customers of the smallest systems have historically absorbed proportionately greater shares of monitoring costs for the Safe Drinking Water Act regulations than the customers of larger systems.

There is, inherently, a wide disparity in cost per household between various water systems. Additionally, some systems have spent more money in complying with the rules and regulations than other systems. The intent of the monitoring assistance program is to assure that all systems (and their customers/ residents) will share in both the costs and benefits of the program on a relatively equal basis, regardless of : (1) the compliance status of the individual water system; (2) area economics; (3) geography; (4) system size; (5) or whether the system must draw from several sources (versus one source) to have the capacity to serve its customers adequately. Under the monitoring assistance program, the cost inequities of the past will be minimized.

Finally, while participation in the program for systems serving more than 10,000 persons is optional, the agency has been contacted by water systems serving more than 10,000 persons that have expressed interest in participating in the program. Those systems will have to determine the benefit of the program for themselves.

RESPONSE: No change

20. ISSUE: What was the methodology for calculating the $350.00 flat-rate fee?

ANALYSIS: During the legislative debate there was considerable discussion over the rate structure for the monitoring assistance program. Many small water systems believed that mandating a flat $350 fee for systems under 100 service connections would provide increased revenue and require the smallest systems to pay a larger and more appropriate share of the program costs. See the response to comment #1.

RESPONSE: See the response to comment #1.

21. ISSUE: One comment letter received asked that ADEQ provide information regarding the implementation and enforcement of the SDWA generally, but which is not relevant to the monitoring assistance program.

RESPONSE: ADEQ will respond to those requests in a letter to the commenter.

22. ISSUE: The commenter requests to know the estimated fees to be charged under the monitoring assistance program for each surface-water-only public water systems, groundwater and surface water public water systems, and groundwater only public water systems.

ANALYSIS: This information will be provided to the commenter.

RESPONSE: No change.

23. ISSUE: The commenter requests citation to state statutes and ADEQ rules that impose any penalty on a well owner who refuses to pay the monitoring assistance program fees.

ANALYSIS: A.R.S. § 49-360(F) mandates that ADEQ establish fees for the monitoring assistance program and collect those fees. This section also mandates that the participating PWS remit those fees to the ADEQ. A.R.S. § 49-354 provides for penalties for violation of A.R.S. § 49-360.

RESPONSE: No change.

24. ISSUE: A commenter requests that ADEQ amend the proposed rules to require that ADEQ notify each PWS of record of the requirement that it must either be a governmental or a commercial operation in order to qualify for the monitoring assistance program, and to be regulated as a PWS under the SDWA.

ANALYSIS: ADEQ disagrees with amending the rules as requested as that amendment would be incorrect. However, ADEQ has notified each PWS that it is a PWS as defined in R18-4-101 and the federal definition in the Safe Drinking Water Act.

RESPONSE: No change.

25. ISSUE: The commenter requested that ADEQ amend the proposed monitoring assistance rules to require that no PWS permit fees of any kind can be imposed by counties.

ANALYSIS: ADEQ disagrees with amending the rules as requested. ADEQ does not have legal authority to prohibit counties from passing ordinances within their purview.

RESPONSE: No change.

26. ISSUE: A commenter argues that his well is not a public water system because there is no commercial activity, therefore, Congress and ADEQ have no authority to regulate his well.

ANALYSIS: Federal law, in 42 U.S.C. § 300 f(4), does not require "commercial activity" for a well that has at least 15 service connections or regularly serves at lease 25 individuals. ADEQ's definition of a public water system as set forth in R18-4-101 is legal and valid based on the federal definition in the Safe Drinking Water Act in Title 18, Chapter 4. The commenter may contest the legality of the law through the court system.

RESPONSE: No change.

27. ISSUE: ADEQ received a comment commending the agency on the work done on the rulemaking and working to reduce the fee from $5.00 to $3.50.

RESPONSE: ADEQ appreciates the comment.

28. ISSUE: The MAP is scheduled to start on January 1, 1999. Can ADEQ retain a contractor and implement this program by January 1, 1999? If the program can't be implemented by January 1, 1999, are the small systems on their own until January 1, 2000, or until the program is implemented, whichever comes first?

ANALYSIS: Yes, ADEQ can begin the program as required by the legislation. If the rules are not approved at the December 1,1998, GRRC meeting, then the program will be delayed or canceled. If there is no program, the public water system must conduct their own sampling.

RESPONSE: No change.

29. ISSUE: If MCLS occur or detects which require increased monitoring, will the PWS be required to pay for the increased sampling frequency and other corrective action measures? How and when will the PWS be contacted if detects or MCLs occur? Who will be contacting the PWS, ADEQ or the contractor? Is there an established process for this situation?

ANALYSIS: If a detect or an MCL violation occurs, it will be the responsibility of the public water system to pay for the increased sampling and other corrective action measures. The MCL exceedance value is noted on the laboratory form received by the public water system. There is a requirement that the public water system notify ADEQ within 72 hours of an MCL violation. However, to assure that public health is not compromised, ADEQ has a policy of notifying a public water system of an MCL exceedance within 24 hours of ADEQ becoming aware of the MCL violation if the public water system has not notified ADEQ.

RESPONSE: No change

30. ISSUE: In case of a high detection level or an MCL exceedance, does the PWS have the right to take a confirmation sample, soon after the notification of results, and compare with the contractor's results? If a PWS disputes an exceeding result, is there a process to handle such a dispute?

ANALYSIS: For these contaminants covered under the Monitoring Assistance Program, the current Drinking Water rules give ADEQ the discretion to allow a confirmation sample to be taken. This will be determined on a case by case basis. When a water system suspects a high result is due to laboratory or sampling error, the water system may notify the Department in writing of the suspected discrepancy. The Department will request that ADHS review the circumstances and procedures surrounding the results.

RESPONSE: No change.

31. ISSUE: When public notifications are required, will this be done by the contractor on behalf of the PWS or is it the PWS's responsibility?

ANALYSIS: Public notice is the responsibility of the public water system.

RESPONSE: No change.

32. ISSUE: In the ADEQ Rules letter (September 1998), it was stated that if after 3 years a public water system is in compliance, the public water system may opt out. Who will inform the public water system if it is in compliance at the end of the 3-year period and that the system may opt out? Will this information be available before the beginning of the 4th year, so that the system may choose not to participate?

ANALYSIS: A public water system that chooses to opt out must send a letter no later than September 1, 2001, that includes both of the following:

1.The name and address of the certified operator for the system.

2.A monitoring plan for the next monitoring period that demonstrates the system's ability to stay in compliance with all monitoring requirements and includes a schedule for required sampling.

RESPONSE: No change.

33. ISSUE: For what period of time can the system stay out of the program, if it serves # 10,000 persons, and during this time does the system have to return to its regular monitoring?

ANALYSIS: A public water system serving less than or equal to 10,000, must be in the program, unless they meet the opt out requirements in A.R.S. § 49-360(H). A system which meets those requirements may opt out from and after January 1, 2002.

RESPONSE: No change.

34. ISSUE: MAP consists of collection, transportation and analytical testing of a total of 98 regulated and unregulated contaminants (VOCs, SOC and IOCs except for asbestos, copper, lead, nitrates and nitrites.

Regulated VOCs (R18-4-211) - 21

Unregulated VOCs (R18-4-404) - 20

Regulated SOCs (R18-4-215)-30

(PCB-decachlorobiphenyl included, 7 Arochlors not included)

Unregulated SOCs (R-18-4-405) - 13

IOCs (R18-4-206) - 11

Sulfate (R18-4-401) - 1

Sodium (R18-4-402) - 1

Total=97

Total number does not match the 98 contaminants. Will the contractor sample for all 7 Arochlors to determine if additional analysis is required for PCB (decachlorobiphenol), section R18-4-206N?

ANALYSIS: The are 12 IOCs not 11. The 12 IOCs are: Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cyanide, Fluoride, Mercury, Nickel, Selenium, and Thallium. Even though Nickel is now unregulated, the total of 98 contaminants remains the same.

RESPONSE: No change.

35. ISSUE: The draft of the revised ADEQ rules, does not include Mercury in section R18-4-206. It is however, included in Section R18-4-205.

ANALYSIS: The rule includes mercury in Section R18-4-206.

RESPONSE: No change.

36. ISSUE: Chemicals not covered by the monitoring assistance program (the remaining IOCs, radiochemicals and other contaminants including total coliform) will still be monitored but they will be the responsibility of the public water system.

ANALYSIS: True. State law requires the monitoring assistance program to monitor on behalf of the PWS for the following categories of contaminants:

1. Volatile Organic Chemicals

2. Synthetic Organic Chemicals

3. Inorganic Chemicals except for asbestos, copper, lead, nitrates and nitrites.

The PWS's obligation to monitor for all contaminants does not change because of the monitoring assistance program.

RESPONSE: No change

37. ISSUE: Is the PWS still responsible for the Corrosivity Analysis, or will this be covered by the program?

ANALYSIS: The corrosivity analysis requirement has been moved. It is now part of the lead and copper rules, which remains the monitoring responsibility of the public water system. Corrosivity analysis is not covered by the monitoring assistance program.

RESPONSE: No change.

38. ISSUE: What is the percentage of non-compliance for <u>total coliform</u> and nitrate monitoring? These have acute public health implications. Why aren't these parameters included in the program?

ANALYSIS: Please see issue 14, which details the number of violations for these contaminants. These contaminants are not covered under this rule making for a number of reasons. One, the legislation authorizing MAP gives priority to the chemical contaminants. Two, although the cost per test for total coliform is less expensive than the cost of chemical monitoring, the volume of total coliform samples is very large and the monitoring frequency is monthly. Three, total coliform and nitrate sampling is also required for transient, noncommunity systems which are excluded from this program. Four, the contractor costs to sample at these frequencies for these number of systems would greatly increase the cost of MAP. ADEQ does not intend to add these contaminants to the Monitoring Assistance Program at this time.

RESPONSE: No change.

39. ISSUE: Before connecting a new POE or and existing POE (one that was disconnected for more than four consecutive quarters) to the distribution system, a Source Water Approval must be obtained from Maricopa County Environmental Services Department, who will also issue a monitoring schedule for all the required parameters. Will the public water system follow that monitoring schedule on their own or will the contractor sample the new POE under the Monitoring Assistance Program?

ANALYSIS: Monitoring requirements are the same regardless of who advises on the monitoring schedules. ADEQ will have the final determination on the monitoring schedule. ADEQ will send out the proposed monitoring schedule to the public water system in advance of the contractor's, therefore allowing for corrections and questions. Further, source water approval monitoring is independent of the requirements of the Monitoring Assistance Program.

RESPONSE: No change.

40. ISSUE: Who will apply for the waivers and reduced monitoring, the contractor or the PWS?

ANALYSIS: ADEQ will initiate waivers for public water systems covered by the monitoring assistance program or the water system may apply on its own. Upon receipt of a signed waiver from the public water system verifying the waiver information, ADEQ will grant or deny waivers as appropriate.

Reduced monitoring must be requested by the public water system in writing. ADEQ grants reduced monitoring.

RESPONSE: No change

41. ISSUE: Who will determine if compositing is allowed?

ANALYSIS: The rules detail the circumstances under which compositing may be allowed. ADEQ will

assist the contractor to utilize compositing as appropriate.

RESPONSE: No change.

42. ISSUE: How will the contractor coordinate all sampling events?

ANALYSIS: The contractor will determine the best method for achieving the contract requirements. ADEQ will review all contractors bids and select contractor that demonstrate the ability to satisfy the contract in a cost effective manner.

RESPONSE: No change.

43. ISSUE: Will the contractor submit all the analysis results to ADEQ, and will the public water system get copies of all results?

ANALYSIS: The legislation requires that the environmental laboratory deliver copies of all analytical results to the contractor, ADEQ, and the public water supplier.

RESPONSE: No change.

44. ISSUE: The requirement of a supplier to report a failure to monitor shifts the burden back on supplier. Historically, suppliers (especially smaller systems) had problem in recognizing sampling dates and actions needed if they fail to sample. This requirement does not relieve them from this burden.

ANALYSIS: True. The public water system remains responsible for assuring that all required monitoring is performed. However, under this program all baseline sampling for the covered should be monitored. Therefore, no sampling violations for baseline should occur, relieving the reporting burden on small systems due to failure to monitor.

RESPONSE: No change.

45. ISSUE: The word “restricts” is very general. What if the timing of a sampling visit or inspection is not suitable for a water supplier, is that a restriction? For smaller systems, it is logical for

contractor to take sample from all systems within a certain geographical area at the same time or day. If that day is not suitable for a water supplier and he cannot provide access on that day, is that a restriction?

ANALYSIS: The Department will require that the contractor coordinate with the public water system as to time and date of the sampling event. Obviously, the contractor will attempt to make the sampling events cost effective. However, if a public water system is not available for sampling, the contractor will reschedule.

RESPONSE :No change

46. ISSUE: The "10,000 persons" [requirement to participate in the monitoring assistance program] is this annual average, maximum or what exactly is it? Many systems provide seasonal population that vary greatly.

ANALYSIS: Most systems who have fluctuating populations are transient, noncommunity systems not covered by this program. Where the system is a community or non transient noncommunity, the Department will follow the written ADEQ policy to determine the population. Otherwise, the dispute resolution on population in the rule will be used.

RESPONSE: No change.

47. ISSUE: R18-4-224(A) lists sources of information by name that can be used to substantiate that system is serving > 10,000 persons. What about if there is viable information, but not of those listed in rule to substantiate > 10,000. Example: Phoenix, North Valley system: it serves part of Phoenix area that is not well defined politically. Specific information on population may not be found in sources listed in rule, but other accurate information may be provided. Is this okay? Which part of the rule allows using such information?

ANALYSIS: The program requests self reporting for both population and service connections. If there is reason to question the self-reported information, ADEQ will work with the water system to resolve the issue. ADEQ will, however, utilize the Census Bureau when the

dispute cannot be resolved.

RESPONSE: No change.

48. ISSUE: R18-4-224 (A)and (F) require that a water system report the population, the number of service connections and ownership information on October 1. Why should a system provide info every year on October 1? This is an added burden. I recommend that these changes be reported when they occur, not less than once every 3 years.

ANALYSIS: ADEQ's experience has been that public water systems' ownership, population, and service connections can change frequently. The requirement is consistent with other agencies who require annual filings or reports such the Arizona Corporation Commission. ADEQ will send out one form with for all the required information so it will be no more burdensome to comply.

RESPONSE: No change.

49. ISSUE: R18-4-224(D) needs a provision to protect a water supplier from contractor faults.

ANALYSIS: The drinking water rules require that the public water system owner or operator be responsible for the compliance of the water system. The Monitoring Assistance Program is to assist pubic water systems with their monitoring. The program does not replace the public water system owner or infringe on their responsibility to remain in compliance. ADEQ has administrative oversight of the program and will review contractor work to assure that the public water system receives the services provided by MAP.

RESPONSE: No change.

50. ISSUE: R18-4-225(B) may need a limit on the percentage of increase on the cost rather than to leave it open (example: not to exceed 10%)

ANALYSIS: The intent of this provision in the rule was to cover the inflation rate that may impact the cost of the program. As such, if inflation is 12% and the increase is limited to some

arbitrary percentage, the program would incur a deficit. The authorizing legislation states that the program must have available funds.

RESPONSE: No change.

51. ISSUE: The table in R18-4-225 considers only meters. What if service connections are not metered?

ANALYSIS: The rule clearly states that it is the number of meters or, if unmetered, then the number of service connections.

RESPONSE: The heading on the table will be corrected to read "Meter or Service Connection Size".

52. ISSUE: The table in R18-4-225 appears to penalize customers that have meters that are oversized for future expansion not for current usage. Example: RV Park that have larger meters for future expansion, but currently have very little water consumption. Rule should include consumption per meter rather than meter size.

ANALYSIS: The number of service connections or meters is self reported. The potential for carrying a greater flow is there because of the oversized meter. ADEQ has no way of monitoring the actual flow, therefore, the fee is based on the actual number of service connections physically present.

RESPONSE: No change.

53. ISSUE: One commenter stated that the legislative intent was that the $3.50 per service connection fee was to be a flat fee, not graduated upon a larger service connection.

ANALYSIS: Draft legislation contained language that stated the fee per service connection was to be $3.50. Discussions between House legislative staff and ADEQ legislative staff were not definitive on the intended meaning. ADEQ staff interpreted that language to apply to a flat rate of $3.50 per 3/4" service connection.

RESPONSE: No change to the rule.

54. ISSUE: R18-4-401(C). Sulfate sampling: What about if sample data is outside the 3-year period covered by contract? Will the cost of the sample be still covered by the contract?

ANALYSIS: The question appears to relate to the sample period for all unregulated compounds. ADEQ intends to take all unregulated samples even if samples are taken prior to the 5 year sample period. EPA has agreed that samples taken every three years may satisfy the unregulated sample requirement. ADEQ may also issue waivers for unregulated contaminants where appropriate.

RESPONSE: No change.

55. ISSUE: R18-4-401(D) only provides for a water supplier to request a waiver and ADEQ to initiate a waiver. Why would a supplier ask for a waiver if a contractor is responsible for sampling? Also, ADEQ may not have time or resources to initiate waivers. The contractor has an advantage in getting a waiver and he should be allowed to apply for one.

ANALYSIS: Historically, public water systems have not asked for waivers even when they were doing their own sampling. The public water system may still not ask for a waiver, but ADEQ has a fiscal responsibility to keep the total costs of the program as low as possible. Therefore, ADEQ has changed its waiver program to allow ADEQ to initiate waivers. Because ADEQ is initiating the waivers and not the contractor, there is no conflict of interest on the part of the contractor.

RESPONSE: No change.

56. ISSUE: A commenter stated that he understood that most non-compliance cases are due to:

1. Missing results/paperwork
2. Missed sample
3. Lab error
4. An inadvertent oversight by the public water systems

ANALYSIS: While some noncompliance is a result of missing results, paperwork errors, late submittals or unsuitable samples, most non-compliance is due to failure to take samples. There has been a high non-compliance rate in th past among small PWSs in Arizona. Indicative of this non-compliance is PWS performance pertaining to SOCs. ADEQ records show that on 26% of PWSs during the 1993-95 monitoring period full complied at the time (the total in 1195 was 939, as differentiated from the FYE 1998 total of 963. Another 43% were in partial compliance (i.e., they monitored for fewer than the required number of SOCs); and 31% did not monitor at all. Thus, a fairly large majority (74%) of small systems have exhibited monitoring deficiencies of one kind of another. ADEQ will implement the monitoring assistance program to ensure that the required monitoring is performed and public health is protected.

RESPONSE: No change.

57. ISSUE: A commenter stated that he believed that those systems that are in compliance are being unnecessarily burdened by the implementation of the monitoring assistance program and he cannot see how this program will benefit his system. He also believes that problems could be better remedied through education and training, rather than through the monitoring assistance program.

ANALYSIS: ADEQ has a statutory mandate to implement the monitoring assistance program and the statute establishes who must participate in the program. The statute does not provide an exemption for systems that are in compliance. However, training and education are a part of the statutory provision and, if the system in compliance with monitoring requirements, it may opt out of the program from and after January 1, 2002.

The economic benefits of this program are set forth in the economic, small business and consumer impact statement.

RESPONSE: No change.

12. Any other matters prescribed by statute that are applicable to the specific agency of to any specific rule or class of rules:

N/A

13. Incorporations by reference and their location in the rule:

N/A

14. Was the rule previously adopted as an emergency rule?

No.

15. The full text of the rules follows:

TITLE 18. ENVIRONMENTAL QUALITY

CHAPTER 4. DEPARTMENT OF ENVIRONMENTAL QUALITY

SAFE DRINKING WATER

ARTICLE 1. ~~DEFINITIONS~~ GENERAL REQUIREMENTS

ARTICLE 2. MAXIMUM CONTAMINANT LEVELS AND MONITORING REQUIREMENTS; MONITORING ASSISTANCE PROGRAM

ARTICLE 4. SPECIAL MONITORING REQUIREMENTS

R18-4-404. Special Monitoring for Unregulated Volatile Organic Chemicals

R18-4-405. Special Monitoring for Unregulated Synthetic Organic Chemicals

TITLE 18. ENVIRONMENTAL QUALITY

CHAPTER 4. DEPARTMENT OF ENVIRONMENTAL QUALITY

SAFE DRINKING WATER

ARTICLE 1. GENERAL REQUIREMENTS

R18-4-101. Definitions

In this Chapter the following terms mean:

1. No change

2. No change

3. No change

4. No change

5. No change

6. "Baseline sampling" means the routine monitoring of contaminants covered under the monitoring assistance program for the purpose of determining compliance with the MCLs listed in Article 2, and the monitoring requirements listed in Article 4, not including repeat monitoring necessary for compliance after detection of a contaminant or an MCL violation.

~~6~~7. No change

~~7~~8. No change

~~8~~9. No change

~~9~~10. No change

~~10~~11. No change

~~11~~12. No change

~~12~~13. No change

~~13~~14. No change

~~14~~15. No change

16. "Contractor" means a private party, or statewide nonprofit organization representing a water system, that the

Department contracts with to implement the monitoring assistance program under A.R.S. § 49-360(B).

~~15~~17. No change

~~16~~18. No change

~~17~~19. No change

~~18~~20. No change

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~~49~~51. No change

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~~51~~53. No change

~~52~~54. No change

~~53~~55. No change

~~54~~56. No change

57. "Meter" means a device that measures the volume of water that passes through it.

58. "Meter weight" means the number of gallons per minute (gpm) that flows through a meter divided by 30.

~~55~~59. No change

~~56~~60. No change

61. "Monitoring assistance program" means the program established by to A.R.S. § 49-360, under which a contractor provides for collection, transportation, and analysis of samples from a public water system under the provisions of R18-4-224 through R18-4-226.

~~57~~62. No change

~~58~~63. No change

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~~94~~99. No change

~~95~~100. No change

~~96~~101. No change

~~97~~102. No change

103. "Unit fee" means the amount charged to a public water system under the monitoring assistance program for a meter weight of 1 in accordance with R18-4-225.

~~98~~104. No change

~~99~~105. No change

~~100~~106. No change

~~101~~107. No change

~~102~~108. No change

~~103~~109. No change

~~104~~110. No change

R18-4-104. Reporting Requirements

A. Routine monitoring: Except as specified in this subsection, a water supplier, or a contractor shall report the result of any test measurement or analysis required by Article 2 to the Department within the first 10 days following the month that the water supplier receives the analytical result or the first 10 days following the end of an applicable monitoring period prescribed by Article 2, whichever ~~is less~~ occurs first.

1. Fecal coliform/*E coli:* If any routine or repeat sample for total coliform is positive, the water supplier shall have the total coliform-positive sample analyzed to determine ~~if~~ whether fecal coliforms are present, except that the water supplier may test for E. coli instead of fecal coliforms. If fecal coliforms or *E. coli* are present in a total coliform-positive sample, a water supplier shall report the positive

results to the Department, by telephone or facsimile, as soon as possible but no later than 24 hours after receiving notice of the fecal coliform-positive or *E. coli*-positive test result.

2. Nitrate: If monitoring results indicate an exceedance of the MCL for nitrate in a routine sample, a water supplier ~~is required by R18-4-208(I) to~~ shall take a confirmation sample within 24 hours of receipt of the analytical results. A water supplier shall report the MCL exceedance to the Department by telephone or facsimile, within 24 hours of receipt of the analytical results.

3. Total trihalomethanes: A water supplier shall report the arithmetic average of analytical results for total trihalomethanes within 30 days of receipt of the last analytical results of the previous quarter.

B. No change

C. No change

D. No change

E. No change

F. No change

G. No change

H. No change

I. No change

J. No change

K. Special monitoring: A water supplier, or a contractor that conducts special monitoring prescribed in Article 4, shall report the following information to the Department:

1. ~~A water supplier that monitors for~~ For sulfate ~~pursuant to~~ under R18-4-401, ~~shall report~~ the sulfate monitoring results within 30 days of receipt of the analytical results~~.~~;

2. ~~A water supplier that monitors for~~ For sodium ~~pursuant to~~ under R18-4-402, ~~shall report~~ the sodium monitoring results in the first 10 days of the month after the month that the analytical results were received. A water supplier shall notify the Arizona Department of Health Services [ADHS] and the local county health department of the sodium monitoring results by direct mail within 3 months of receipt of the analytical results. The water supplier shall send a copy of each notice provided to ADHS and the local county health department to the Department within 10 days of issuance~~.~~;

3. ~~A water supplier that monitors for~~ For unregulated VOCs ~~pursuant to~~ under R18-4-404~~,~~ ~~shall report~~ the analytical results to the Department within 30 days of receipt of the analytical results~~.~~; and

4. ~~A water supplier that monitors for~~ For unregulated SOCs ~~pursuant to~~ under R18-4-405 shall report the analytical results to the Department within 30 days of receipt of the analytical results.

L. Failure to comply with monitoring requirements: A water supplier shall report the failure to comply with any monitoring requirement prescribed in this Chapter, including a monitoring requirement covered by the monitoring assistance program in Chapter 4, within 48 hours, except that a public water system that fails to comply with a total coliform monitoring requirement shall report the monitoring violation to the Department within 10 days of discovery.

M. No change

N. No change

O. No change

P. Confirmation sample results: A water supplier shall report the analytical results of any confirmation sample required by the Department, except a confirmation sample obtained by a contractor under the monitoring assistance program within 24 hours of receipt of the analytical results.

Q. No change

R. No change

S. No change

T. No change

U. No change

R18-4-120. Monitoring and Sampling by the Department

A. The Department~~, as it considers necessary for the protection of public health,~~ may take samples from a public water system. ~~Upon completion of analytical testing, a copy of the analytical results shall be forwarded to the water supplier~~ If the Department takes a sample at a public water system, the Department shall forward a copy of the analytical results to the water supplier.

B. If a public water system fails to ~~conduct required monitoring~~ monitor, the Department may ~~conduct monitoring~~ monitor to determine ~~the system's~~ compliance with ~~maximum contaminant levels~~ MILS. ~~Any monitoring conducted by the Department shall not be used by a public water system~~ A public water system shall not use Department monitoring to satisfy ~~any~~ monitoring requirements prescribed by this Chapter. This subsection does not apply to monitoring under the monitoring assistance program.

C. A contractor shall take compliance samples for the categories of contaminants listed in A.R.S. § 49-360(A)(1) - (3) for a public water system that participates in the monitoring assistance program.

R18-4-122. Entry and Inspection of Public and Semipublic Water Systems

A. ~~A public water system or semipublic water system that is subject to regulation under this Chapter shall allow a designated representative of the Department, upon presenting appropriate credentials, to enter any establishment, facility, or other property to determine whether the water supplier has acted or is acting in compliance with the requirements of this Chapter. Such inspection may include inspection, at reasonable times, of records, files, papers, processes, controls, and facilities or testing any feature of a public water system or semipublic water system, including its source.~~ A Department inspection shall comply with A.R.S. § 49-1009.

B. If a public water system that participates in the monitoring assistance program denies or restricts a contractor access to the public water system or prevents a contractor from collecting a sample covered under the monitoring assistance program, the water supplier shall be legally responsible for the resulting noncompliance with monitoring requirements.

ARTICLE 2. MAXIMUM CONTAMINANT LEVELS AND MONITORING REQUIREMENTS; MONITORING ASSISTANCE PROGRAM

R18-4-206. Monitoring Requirements for Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cyanide, Fluoride, Mercury, Selenium, and Thallium.

A. A TNCWS is not required to monitor for the inorganic chemicals listed in this Section. Each CWS and

NTNCWS, or a contractor on behalf of a CWS or NTNCWS, shall monitor for the following inorganic chemicals:

1. Each CWS shall monitor to determine compliance with the MILS for antimony, arsenic, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, selenium, and thallium.

2. Each NTNCWS shall monitor to determine compliance with the MILS for all of the inorganic chemicals listed in subsection (A)(1) except fluoride and arsenic.

B. No change

C. No change

D. A CWS ~~or,~~ NTNCWS, or the contractor on behalf of a CWS or NTNCWS, may composite samples for inorganic chemicals as prescribed in R18-4-219.

E. No change

F. No change

G. No change

H. If the analytical results of an initial sample indicate that there is an exceedance of a MCL, the Department may require that a water supplier or contractor take a confirmation sample ~~be taken~~ as soon as possible but no later than 2 weeks after taking the initial sample ~~was taken~~ at the same sampling point.

I. No change

J. ~~A~~ Except for a water supplier subject to the monitoring assistance program, a water supplier may apply to the Department to conduct monitoring at a sampling point more frequently than the monitoring frequency specified in subsection (E). If the Department gives written approval to conduct more frequent monitoring at a sampling point, compliance shall be determined by a running annual average at the sampling point. If the running annual average at the sampling point is greater than the MCL, the public water system is out of compliance. If any single analytical results causes the running annual average to exceed the MCL, the public water system is immediately out of compliance.

K. A water supplier may make a written request to, or the Department under the monitoring assistance program, may reduce monitoring frequency for an inorganic chemical at a sampling point. The Department may reduce monitoring frequency at a sampling point as follows:

1. Groundwater sampling points: The Department may reduce monitoring frequency at a groundwater sampling point from once every 3 years to a less frequent basis if a public water system has monitored at least once every 3 years for 9 years at the groundwater sampling point and all previous analytical results for the inorganic chemical are below the MCL.

2. Surface water sampling points: The Department may reduce monitoring frequency at a surface water sampling point from annually to a less frequent basis if the surface water system has monitored annually at the surface water sampling point for at least 3 consecutive years and all previous analytical results for the inorganic chemical are below the MCL.

3. The term of reduced monitoring shall not exceed 9 years.

4. A CWS or NTNCWS shall take at least 1 sample at the sampling point during the reduced monitoring term.

5. In determining the appropriate reduced monitoring frequency at a sampling point, the Department shall consider the following factors:

    a. Reported concentrations of the inorganic chemical from all previous monitoring;

    b. The degree of variation in the reported concentrations of the inorganic chemical; and

    c. Other factors that may affect the concentration of the inorganic chemical such as changes in groundwater pumping rates, the configuration of the CWS or NTNCWS, operating procedures, stream flows, or source water characteristics.

6. The Department's decision to reduce monitoring frequency at a sampling point shall be in writing and shall specify the grounds for the decision. A water supplier may make a written request for reduced monitoring or the Department may grant reduced monitoring on its own. A water supplier shall provide documentation of analytical results that support the request for reduced monitoring. When a CWS or NTNCWS submits new data or if other data relevant to the public water system's appropriate monitoring frequency become available, the Department shall review the data and, if appropriate, revise its determination of monitoring frequency.

7. A CWS or NTNCWS that uses a new source is not eligible for reduced monitoring until it completes 3 consecutive rounds of monitoring from the new source.

L. No change

R18-4-212. Volatile Organic Chemical; Monitoring Requirements

A. Each CWS ~~and~~, NTNCWS, or the contractor on behalf of a CWS or NTNCWS , shall monitor to determine compliance with the MILS for the VOCs listed in R18-4-211. A TNCWS is not required to monitor for the VOCs listed in R18-4-211.

B. A CWS ~~or~~, NTNCWS, or a contractor on behalf of a CWS or NTNCWS, shall conduct initial monitoring for VOCs in the monitoring year designated by the Department within the initial compliance period, except that a CWS or NTNCWS shall monitor for vinyl chloride only as prescribed in R18-4-213.

C. ~~Each~~ A CWS, and NTNCWS, or a contractor on behalf of a CWS or NTNCWS, shall monitor to determine compliance with the MILS for VOCs at each sampling point as prescribed in R18-4-218.

D. A ~~water supplier~~ CWS, NTNCWS, or a contractor on behalf of a CWS or NTNCWS, may composite samples for VOCs ~~as prescribed in~~ under R18-4-219.

E. A CWS, ~~or~~ NTNCWS, or a contractor on behalf of a CWS or NTNCWS, shall take 4 consecutive quarterly samples at each sampling point for each VOC listed in R18-4-211 (except vinyl chloride) during the initial compliance period unless a CWS or NTNCWS qualifies for reduced monitoring or obtains a monitoring waiver. A CWS shall conduct initial monitoring for VOCs in the monitoring year designated by the Department within the initial compliance period.

F. No change

G. No change

H. No change

I. No change

J. No change

K. A CWS or NTNCWS that does not detect a VOC at a sampling point in a concentration that is $\leq$ 0.0005 mg/l during initial monitoring may submit a written request to the Department for a waiver from repeat monitoring requirements at that sampling point. The Department may initiate a waiver for a CWS or NTNCWS. A CWS or NTNCWS may not obtain a waiver from initial monitoring requirements. A monitoring waiver for a

groundwater sampling point shall be effective for a term not to exceed 6 years. A monitoring waiver for a surface water sampling point shall be effective for a 3-year term. The Department's decision to grant or deny a request for a monitoring waiver shall be in writing. The Department may grant a monitoring waiver as follows:

1. Use waiver: The Department may grant a use waiver if the Department determines that there has been no previous use of the VOC (including transport, storage, or disposal) within the watershed or zone of influence of a well.

2. Susceptibility waiver: If previous use of the VOC is unknown or if it has been used previously, the Department may grant a susceptibility waiver based upon a vulnerability assessment. The Department shall consider the following factors in deciding whether to grant or deny a susceptibility waiver:

   a. Previous analytical results,

   b. The proximity of the CWS or NTNCWS to a potential point or nonpoint source of contamination. A point source of contamination includes a spill or leak of a chemical at or near a water treatment plant or distribution system pipeline, at a manufacturing, distribution or storage facility, or from a hazardous or municipal waste landfill or other waste handling or treatment facility,

   c. The environmental persistence and transport of the VOC,

   d. The number of persons served by the CWS or NTNCWS and the proximity of a smaller system to a larger system, and

   e. How well the water source is protected against contamination. The Department shall consider factors such as the depth of the well, the type of soil, and wellhead protection for a groundwater system and watershed protection for a surface water system.

3. Sampling conditions for waivers: As a condition of a monitoring waiver for a groundwater sampling point, a CWS or NTNCWS shall take 1 sample at the groundwater sampling point during the time the waiver is effective (i.e., 1 sample every 6 years). A CWS or NTNCWS shall update its vulnerability assessment during the term of the waiver, considering the factors listed in subsection (K)(2). The Department may renew a waiver based upon an updated vulnerability assessment provided the assessment reconfirms that the CWS or NTNCWS is not vulnerable to VOC contamination. If the

Department does not reconfirm nonvulnerability within 3 years of the initial determination, the waiver automatically terminates and the CWS or NTNCWS shall sample annually at the groundwater sampling point in the next compliance period.

4. Vulnerability assessment updates: A CWS or NTNCWS that receives a monitoring waiver for a surface water sampling point shall sample at the frequency specified by the Department (if any). A CWS or NTNCWS shall update its vulnerability assessment during each compliance period. The Department may update a public water system's vulnerability assessment for a CWS or NTNCWS that is subject to the monitoring assistance program. The Department may renew a waiver based upon an updated vulnerability assessment provided the assessment reconfirms that the CWS or NTNCWS is not vulnerable to VOC contamination. If the Department does not reconfirm nonvulnerability, the waiver automatically terminates and a CWS, ~~or~~ NTNCWS, or a contractor on behalf of a CWS or NTNCWS shall sample annually at the surface water sampling point in the next compliance period.

R18-4-216. Synthetic Organic Chemicals; Monitoring Requirements

A. ~~Each~~ A CWS ~~and~~, NTNCWS, or a contractor on behalf of a CWS or NTNCWS, shall monitor to determine compliance with the MCLs for the SOCs listed in R18-4-215. A TNCWS is not required to ~~conduct monitoring~~ monitor for SOCs.

B. A CWS, ~~or~~ NTNCWS, or a contractor on behalf of a CWS or NTNCWS, shall conduct initial monitoring for SOCs in the monitoring year designated by the Department within the initial compliance period.

C. ~~Each~~ A CWS, ~~or~~ NTNCWS, or a contractor on behalf of a CWS or NTNCWS, shall monitor for SOCs at each sampling point as prescribed in R18-4-218.

D. A ~~water supplier~~ A CWS, ~~or~~ NTNCWS, or a contractor on behalf of a CWS or NTNCWS, may composite SOC samples as prescribed in R18-4-219.

E. ~~Each~~ A CWS, ~~or~~ NTNCWS, or a contractor on behalf of a CWS or NTNCWS, shall take ~~four~~ 4 consecutive quarterly samples at each sampling point during each compliance period. If no ~~synthetic organic chemicals~~ SOCs are detected at a sampling point during the initial compliance period, then the Department may reduce monitoring frequency in repeat compliance periods ~~pursuant to~~ under subsection (G) ~~below~~. The Department's decision to

reduce monitoring frequency shall be in writing.

F. No change

G. No change

H. No change

I. No change

J. No change

K. No change

L. No change

M. A CWS or NTNCWS may submit a written request to the Department for a waiver from the monitoring requirements for a SOC. The Department may initiate a waiver for a CWS or NTNCWS. A monitoring waiver is effective for 1 compliance period. The Department's decision to grant a monitoring waiver shall be in writing. A CWS or NTNCWS shall reapply for a monitoring waiver in each subsequent compliance period. A CWS or NTNCWS that receives a monitoring waiver is not required to monitor for the SOC during the term of the waiver. The Department may grant a monitoring waiver as follows:

1. Use waivers: The Department may grant a use waiver if the Department determines that there has been no previous use of the SOC (including transport, storage, or disposal) within the watershed or zone of influence of a well. If previous use of the SOC is unknown or if the SOC has been used previously, the Department may grant a susceptibility waiver based upon a vulnerability assessment.

2. Susceptibility waiver: The Department may grant a susceptibility waiver based upon the results of a vulnerability assessment. The Department shall consider the following factors in deciding whether to grant or deny a susceptibility waiver:

    a. Previous analytical results,

    b. The proximity of the CWS or NTNCWS to a potential point source or nonpoint source of contamination. A point source of contamination includes a spill or leak of a SOC at or near a water treatment plant or distribution system pipeline, or at a manufacturing, distribution, or storage facility, or from a hazardous or municipal waste landfill, or from another waste handling or treatment facility. A nonpoint source includes the use of pesticides to control

insect and weed pests on an agricultural area, forest, home, garden, or other land application use,

c. The environmental persistence and transport of the SOC,

d. How well the water source is protected against contamination by the SOC due to such factors as geology and well design (e.g., depth to groundwater, type of soil and the integrity of the well casing),

e. Elevated nitrate levels at the water supply source,

f. Use of PCBs in equipment used in the production, storage, or distribution of water, and

g. Wellhead protection assessments.

N. No change

R18-4-219. Sample compositing

A. No change

B. No change

C. A public water system may composite up to 5 samples from sampling sites within the same public water system. A public water system serving 3,300 or fewer persons may composite samples with samples taken from other public water systems serving 3,300 or fewer persons. A contractor may composite samples for a CWS or NTNCWS that is subject to the monitoring assistance program as prescribed in this Section.

D. No change

E. No change

R18-4-224. The Monitoring Assistance Program

A. A public water system that serves 10,000 or fewer persons shall participate in the monitoring assistance program. Within 60 days of receiving notice of participation in the monitoring assistance program, a public water system that determines that it serves more than 10,000 persons shall substantiate its determination by submitting that portion of the most recent census provided by the Arizona Department of Economic Security, Research Administration, Population Statistics Unit that supports the public water system's determination. By

October 1 of each year, the public water system shall report the population it served as of June 30 of that year.

B. A public water system that serves more than 10,000 persons may participate in the monitoring assistance program for a minimum of 3 years, based upon its compliance period. The public water system shall notify the Department in writing, of its intention to participate in the monitoring assistance program at least 1 year in advance of its assigned monitoring year, unless its assigned monitoring year is 1999. Subject to payment of required fees, the public water system's participation shall begin at the start of its assigned monitoring year.

D. Under the monitoring assistance program, a contractor shall monitor for all inorganic chemicals listed in R18-4-206, R18-4-401, and R18-4-402; all VOCs listed in R18-4-211 and R18-4-404, and all SOCs listed in R18-4-215 and R18-4-405.

E. A public water system shall comply with the public notice requirements of R18-4-105.

F. A public water system shall notify the Department, by October 1 of each year of any change in ownership and mailing address. The public water system shall notify the Department of the name of the person to whom billing is to be addressed, and number of meters or service connections of each size that the public water system had on June 30 that year.

R18-4-225. Fees for the Monitoring Assistance Program

A. The Department shall bill a public water system that serves 10,000 or fewer persons annually.

B. For the billing year 1999, a public water system with $ 100 service connections shall use a unit fee of $3.50 to determine the total fee to be paid under R18-4-225(D). In years 2000 and 2001, the public water system shall pay a unit fee of $3.50 adjusted on January 1 to reflect the weighted percentage increase, if any, in the contract costs as of the close of the 12 month period ending on December 31 of the previous year.

C. For the billing year 1999, a public water system with fewer than 100 service connections shall pay an annual fee of $350. For the billing years 2000 and 2001, the public water system shall pay an annual fee of $350 adjusted on January 1 to reflect the weighted percentage increase, if any, in the contract costs as of the close of the 12 month period ending on December 31 of the previous year.

Table A

Meter or Service Connection Size	Gallons Per Minute(GPM)	Meter Weight
˜3/4"	30	1.00
1"	50	1.67
1½”	100	3.33
2"	160	5.33
3"	300	10.00
4"	500	16.67
6"	1000	33.33
š8"	1600	53.33

D. The Department shall calculate a total fee to the public water system as follows:

1. Multiply the meter weight by the number of meters or service connections of each size that were capable of providing water as of October 1, preceding the billing date;
2. Add the results for each category; and
3. Multiply the result in paragraph 2 by the unit fee.

E. A public water system that serves more than 10,000 persons and that chooses to participate in the monitoring assistance program shall participate for the entire compliance period and shall pay fees in accordance with this Section.

R18-4-226. Collection and Payment of Fees

A. The Department shall mail an invoice for fees to a public water system annually. The public water system shall pay the invoiced amount to the Department, at the address listed on the invoice, by the indicated due date.

B. The Department may make refunds or billing corrections for a public water system that can demonstrate an overpayment, or error in the amount, or number, or size of meters billed. The public water system shall send a written request for a refund or correction to the Department, at the address on the invoice, within 90 days of the invoice date.

C. The Department may verify the number and size of meters, or if unmetered, the number of service connections.

D. The Department shall not waive program fees.

E. A public water system that fails to pay its fees shall be subject to the penalties listed in A.R.S. § 49-354.

ARTICLE 4. SPECIAL MONITORING REQUIREMENTS

R18-4-401. Special Monitoring Requirements for Sulfate

A. ~~All community water systems [CWS] and nontransient, noncommunity water system [NTNCWS] shall conduct monitoring for sulfate.~~ Each CWS, NTNCWS, or a contractor on behalf of a CWS or NTNCWS, shall monitor for sulfate.

B. ~~Monitoring for sulfate shall be conducted~~ Each CWS, NTNCWS, or a contractor on behalf of a CWS or NTNCWS, shall take 1 sample for sulfate at each sampling point as prescribed in R18-4-218.

C. ~~Each CWS or NTNCWS shall take one sample at each sampling point for sulfate before December 31, 1995. Monitoring for sulfate shall be repeated once every five years.~~ Each CWS, NTNCWS, or a contractor on behalf of a CWS or NTNCWS, shall monitor for sulfate once every 5 years.

D. A CWS or NTNCWS may apply for a waiver from sulfate monitoring requirements. The Department may initiate a waiver for a CWS or NTNCWS. The Department may waive sulfate monitoring requirements ~~for sulfate~~ at a sampling point if previous analytical results are available ~~which~~ that indicate that the concentration of sulfate does not exceed 250 mg/L, provided the monitoring data was collected after January 1, 1990. The Department's decision to waive sulfate monitoring requirements shall be in writing.

E. The Department may require a confirmation sample.

F. ~~A CWS or NTNCWS~~ A CWS, NTNCWS, or a contractor on behalf of a CWS or NTNCWS, may composite sulfate samples as prescribed in R18-4-219.

R18-4-402. Special Monitoring for Sodium

A. A CWS, or a contractor on behalf of a CWS, shall conduct monitoring for sodium.

B. Each CWS, or a contractor on behalf of a CWS, shall collect 1 sample per water treatment plant. Multiple wells

drawing raw water from a single aquifer may, with Department approval, be considered one treatment plant for purposes of determining the minimum number of sodium samples required..

C. Each CWS, or a contractor on behalf of the CWS, shall collect and analyze 1 sample annually for each water treatment plant utilizing a surface water source, in whole or in part. A CWS shall collect and analyze 1 sample every 3 years for each water treatment plant utilizing only groundwater sources. The Department may require a water supplier to collect and analyze water samples more frequently in locations where the sodium content is variable.

R18-4-404. Special Monitoring for Unregulated Volatile Organic Chemicals

A. Each ~~community water system [CWS] and nontransient, noncommunity water system [NTNCWS] shall monitor for unregulated volatile organic chemicals for which maximum contaminant levels have not been established~~ CWS, NTNCWS, or a contractor on behalf of the CWS or NTNCWS, shall monitor for the unregulated VOCs listed in this subsection.

1. Bromobenzene
2. Bromodichloromethane
3. Bromoform
4. Bromomethane
5. Chlorodibomomethane
6. Chloroethane
7. Chloroform
8. Chlormethane
9. o-Chlorotoluene
10. p-Chlorotoluene
11. Dibromomethane
12. m-Dichlorobenzene
13. 1,1-Dichloroethane
14. 1,3,-Dichloropropane

15. 2,2-Dichloropropane

16. 1,1-Dichloropropene

17. 1,3-Dichloropropene

18. 1,1,1,2-Tetrachloroethane

19. 1,1,2,2-Tetrachloroethane

20. 1,2,3,-Trichloropropane

B. A ~~CWS or NTNCWS~~ CWS, NTNCWS, or a contractor on behalf of a CWS, shall ~~conduct monitoring~~ monitor for unregulated ~~volatile organic chemicals~~ VOCs at sampling points prescribed in R18-4-218.

C. ~~Each CWS and NTNCWS~~ A CWS, NTNCWS, or a contractor on behalf of a CWS, shall take ~~four~~ 4 consecutive quarterly samples at each surface water sampling point for each unregulated ~~volatile organic chemical~~ VOC listed in this Section. ~~Each CWS and NTNCWS~~ A CWS, NTNCWS, or a contractor on behalf of a CWS, shall take ~~one~~ 1 sample at each groundwater sampling point for each unregulated ~~volatile organic chemical~~ VOC listed in this Section. ~~Each CWS and NTNCWS shall conduct repeat monitoring~~ A CWS, NTNCWS, or a contractor on behalf of a CWS, shall monitor for unregulated ~~volatile organic chemicals~~ VOCs at least once every ~~five~~ 5 years.

D. A CWS or NTNCWS may use monitoring data collected ~~any time after January 1, 1983~~ prior to the initial monitoring year to meet the initial monitoring requirements for unregulated ~~volatile organic chemicals~~ VOCs listed in this Section provided the monitoring data was collected after January 1, 1983.

E. ~~A CWS or NTNCWS~~ A CWS, NTNCWS, or a contractor on behalf of a CWS, may composite samples for the unregulated ~~volatile organic chemicals~~ VOCs listed in this Section as prescribed in R18-4-219.

F. A CWS or NTNCWS may apply for a waiver from the monitoring requirements for the unregulated ~~volatile organic chemicals~~ VOCs listed in this Section. The Department may grant a waiver based upon the criteria specified in R18-4-212(L). The Department may initiate a waiver for a CWS or NTNCWS.

G. A water supplier shall notify ~~persons~~ a person served by the public water system of the availability of the monitoring results for unregulated ~~volatile organic chemicals~~ VOCs listed in this Section by including a notice in the first set of water bills issued by ~~the~~ a public water system after receipt of the monitoring results or by direct mail within ~~three~~ 3 months of receipt of the monitoring results. The notice shall identify a contact person

and supply a telephone number ~~which~~ that a person may be called for more information on the monitoring results. For surface water systems, public notification is required only after the first quarter's monitoring results ~~and the~~. The notice shall include a statement that the public water system shall ~~additional monitoring~~ monitor for unregulated ~~volatile organic chemicals~~ VOCs ~~will be conducted~~ for ~~three~~ 3 more quarters ~~with~~ and the monitoring results are available upon request.

R18-4-405. Special Monitoring for Unregulated Synthetic Organic Chemicals

A. ~~Each community water system and nontransient, noncommunity water system shall conduct monitoring for the following unregulated synthetic organic chemicals for which maximum contaminant levels have not been established:~~ Each CWS, NTNCWS, or a contractor on behalf of a CWS, shall monitor for the unregulated SOCs listed in this Section.

1. Aldicarb
2. Aldicarb sulfone
3. Aldicarb sulfoxide
4. Aldrin
5. Butachlor
6. Carbaryl
7. Dicamba
8. Dieldrin
9. 3-Hydroxycarbofuran
10. Methomyl
11. Metolachlor
12. Metribuzin
13. Propachlor

B. ~~Each CWS or NTNCWS shall conduct monitoring~~ A CWS, NTNCWS, or a contractor on behalf of a CWS or NTNCWS, shall monitor for the unregulated ~~synthetic organic chemicals~~ SOCs listed in this Section at sampling points as prescribed in R18-4-218.

C. ~~Each CWS and NTNCWS~~ A CWS, NTNCWS, or a contractor on behalf of a CWS or NTNCWS, shall take ~~four~~ 4 consecutive quarterly samples at each sampling point for each unregulated ~~synthetic organic chemical~~ SOC listed in this Section. Each CWS and NTNCWS shall complete initial monitoring for the unregulated ~~synthetic organic chemicals~~ SOCs listed in this Section and report the analytical results to the Department by December 31, 1995. ~~Each CWS and NTNCWS shall conduct repeat monitoring for the unregulated synthetic organic chemicals listed in this Section at least once every five years~~ A CWS, NTNCWS, or a contractor on behalf of a CWS or NTNCWS, shall monitor for unregulated SOCs at least once every 5 years.

D. A ~~CWS or NTNCWS~~ CWS, NTNCWS, or a contractor on behalf of a CWS, may composite samples for the unregulated ~~synthetic organic chemicals~~ SOCs listed in this Section as prescribed in R18-4-219.

E. ~~Each~~ A CWS and NTNCWS may submit a written request to the Department for a waiver from the monitoring requirements for unregulated ~~synthetic organic chemicals~~ SOCs listed in this Section. The Department under the monitoring assistance program, may initiate a waiver to a CWS or NTNCWS. ~~Use waivers and susceptibility waivers for unregulated synthetic organic chemicals listed in this Section may be granted~~ The Department may grant a use waiver or a susceptibility waiver for an unregulated SOC based upon the waiver criteria specified in R18-4-216(M).

~~**F.** Instead of performing the monitoring required by this Section, a CWS or NTNCWS serving fewer than 150 service connections may send a letter to the Department stating that the CWS or NTNCWS is available for sampling. This letter must be sent to the Department by January 1, 1994. The CWS or NTNCWS shall not send such samples to the Department unless requested to do so.~~